DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION				
DISTRICT ADDRESS AND PHONE NUMBER	DATE(S) OF INSPECTION			
12420 Parklawn Drive, Room 2032	5/1/2023-5/12/2023*			
Rockville, MD 20857	FEI NUMBER 3003157498			
NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED				
Kirti Maheshwari, Chief Operating Officer				
FIRM NAME	STREET ADDRESS			
Intas Pharmaceuticals Limited	458 Plots 457, Sarkhej - Bavla Highway			
CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLISHMENT INSPECTED			
Ahmedabad, Gujarat, 382210 India	Drug Manufacturer			

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 WE OBSERVED:

OBSERVATION 1

Batch production and control records do not include complete information relating to the production and control of each batch.

- A) Our review of parenteral drug product batch records since 2021 found that manual visual inspection data for finished parenteral drug products appeared to be routinely manipulated by your manual visual inspectors to stay just below the established reject particle limits set for General parenteral for one or more particle defect categories (black particle, white particle, fiber, glass). Our review found a pattern of two practices, which your firm confirmed through employee interviews:
 - 1. A pattern of visual inspection records being altered to change the reported counts from values that exceed the individual particle limits (black particle, white particle, fibers, glass) by instead reporting these as other categories or removing reported counts from values that exceed limits without accounting for the removed value. This would mean there would be no required investigation and the inspectors would not be required to fully reinspect the batch. For Example:

Injection USP (b) mg/ml (b) and the number of rejects was moved to a different category. (US). On the visual

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DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION				
DISTRICT ADDRESS AND PHONE NUMBER	DATE(S) OF INSPECTION			
12420 Parklawn Drive, Room 2032	5/1/2023-5/12/2023*			
Rockville, MD 20857	FEI NUMBER 3003157498			
NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED				
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FIRM NAME	STREET ADDRESS			
Intas Pharmaceuticals Limited	458 Plots 457, Sarkhej - Bavla Highway			
CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLISHMENT INSPECTED			
Ahmedabad, Gujarat, 382210 India	Drug Manufacturer			

	Original White Particle	Altered White Particle	Original Fiber	Altered Fiber	Original Black	Altered Black
Inspector 1	3	0	9	0	0	12
Inspector 2	6	0	9	0	0	15
Inspector 3	5	0	5	5	0	5
Total (b) Inspectors Limits	61 (b) %) (d) %	56 (b) %)	102 (b) %) (b) %	84 (b) %)	12 (b) %) (d) %	44 (b) %)
Met Limit	No	Yes	No	Yes	Yes	Yes

A similar pattern, where reject counts originally exceeding a limit were later altered in one or more of the categories for %white particles, %black particles, %fiber, %seal, %glass, %total non-particulate matter rejection, %total particulate matter rejection, and %total rejection, were observed in the following batches:

(b) (4)	Injection mg ml, Batch No. (b) (4)	(US)
_(b) (4)		(US)
(b) (4)		(US)
_(b) (4)		(US)
(b) (4)		(US)
(b) (4)	Injection mg/ml, Batch No. (b) (4)	(Europe)
_(b) (4)	Injection USP (b) mg/ml. Batch No. (b) (4)	(US)
(b) (4)	Injection USP (b) mg/ml, Batch No. (b) (4) Injection (b) mcg/ml, Batch No. (US)	(US)
_(b) (4)	Injection mcg/ml, Batch No. (b) (4) (US)	3.77
_(b) (4)	Injection USP (mg/ml, Batch No. (b) (4)	(US)

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	HEALTH AND HUMAN SERVICES D DRUG ADMINISTRATION	
DISTRICT ADDRESS AND PHONE NUMBER	DATE(S) OF INSPECTION	
12420 Parklawn Drive, Room 2032	5/1/2023-5/12/2023*	
Rockville, MD 20857	FEI NUMBER 3003157498	
NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED	*	
Kirti Maheshwari, Chief Operating Off:	icer	
FIRM NAME	STREET ADDRESS	
Intas Pharmaceuticals Limited	458 Plots 457, Sarkhej - Bavla Highway	
CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLISHMENT INSPECTED	
Ahmedabad, Gujarat, 382210 India	Drug Manufacturer	
(b) (4) Injection USP (b) (4) m	neg/ml, Batch No. (US)	

Injection USP (b) (4) mcg/ml, Batch No. (b) (4) (US)

mg Injection, Batch No. (b) (4) (Domestic)

Injection, (b) (a) ml, Batch No. (b) (4) (Domestic and ROW)

2. Visual inspection records showed a pattern where visual inspection records for multiple operators were identical. Your firm interviewed your personnel, who explained carrying out this practice to make it appear that there were no operator performance issues (for example, one operator not detecting any rejects), by getting together and dividing up what to record on the record, resulting in everyone reporting the same thing. For Example, for drug product (b) (4) Solution Injection (b) mg/ml (d), Batch No. (b) (4) (Europe), nine different manual visual inspectors for (d) different set of trays inspected had the below identical numbers for all listed categories:

Rejection Details	No. of units rejected	
Black Particle	01	
White Particle	01	
Fiber Particle	02	
Glass Particle	02	
Volume Variation	00	
Breakage/Crack	00/00	
Without (b) (4) /loose (b) (4)	03/00	
(b) Stopper alignment	07	
bent	00	
(b) without (b) (4) stopper (b) (4) stopper Liquid entrapment between ridges of stopper	00/00	
Liquid entrapment between ridges of stopper	05	
Any foreign material adhered on stopper	00	
Others	00	

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Justin A Boyd, Investigator
Arsen Karapetyan, Investigator - Dedicated
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Justin A Boyd Investigator Signed By 2000358686 Date Signed 05-12-2023 09 12 20 DATE ISSUED 5/12/2023

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DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION				
DISTRICT ADDRESS AND PHONE NUMBER	DATE(S) OF INSPECTION			
12420 Parklawn Drive, Room 2032	5/1/2023-5/12/2023*			
Rockville, MD 20857	3003157498			
NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED	<u> </u>			
Kirti Maheshwari, Chief Operating Office	er			
FIRM NAME	STREET ADDRESS			
Intas Pharmaceuticals Limited	458 Plots 457, Sarkhej - Bavla Highway			
CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLISHMENT INSPECTED			
Ahmedabad, Gujarat, 382210 India	Drug Manufacturer			
Total Rejection	21			

Total Rejection	21
No. Good Units	(b) (4)

Similar practices for additional batches we reviewed, where identical results were observed in the records of multiple operators are listed below:

```
(b) (4)
                                    Injection mg/h ml, Batch No. (b) (4)
                                                                                                                          (US)
                                   Injection mg/ml, Batch No. (b) (4)
(b) (4)
                                                                                                                          (US)
                         Injection b mg ml, Batch No. (b) (4)
Solution Injection (b) mg/ml (b), Batch Solution Injection (c) mg/ml (d), Batch No. (b) (4)
(b) (4)
                                                                                                                          (Europe)
                                                                       mg/ml (b)
mg/ml (b)
(b) (4)
                                                                                               , Batch No.
                                                                                                                                                (US)
                                                                                               , Batch No. (b) (4)
(D) (4)
                        Solution Injection (b) mg/ml (b) , Batch Solution Injection (b) mg/ml (d) , Batch Injection (b) mg/ml (d) ml, Batch No. (b) (4) Injection (b) mg/ml, Batch No. (b) (4) Injection (b) mcg/ml, Batch No. (b) (4) Injection USP (b) mg/ml, Batch No. (b) (4)
                                                                                                                                                (US)
                                                                                               , Batch No. (b) (4)
(b) (4)
                                                                                                                                                (Europe)
(b) (4)
                                                                                                                     (US)
(b) (4)
                                                                                                                    (US)
(b) (4)
(b) (4)
                                                                                                                           (US)
```

This repeated pattern of altering and/or manipulating visual inspection records was observed since at least 2021 with multiple visual inspectors and supervisors involved. The quality unit used these deficient records to release batches of drug products to the US market.

During the current inspection, your firm initiated Deviation No. MA/DF/2023/0208, dated May 4, 2023, which reads in part: "Visual inspection reports have alteration of data for the category of defects reported on visual inspection". Reasons for this practice identified in your report include: "correction in quantities to keep the category wise rejections within limits to avoid deviation and investigation". The deviation also identified "Visual inspection reports having number of good and reject units which are identical for two or more inspectors". Reasons for the discrepancy read in part: "to show uniform performance and productivity among the inspectors".

SEE REVERSE OF THIS PAGE Rita K Kabaso, Investigator Justin A Boyd, Investigator Arsen Karapetyan, Investigator - Dedicated Drug Cadre	Justin A Boyd Investigator Signed By 2000356866 Date signed 05-12-2023	5/12/2023
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FORM FDA 483 (09/08) PREVIOUS EDITION OBSOLETE INSPECTIONAL OBSERVATIONS PAGE 4 of 29 PAGES

DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION				
DISTRICT ADDRESS AND PHONE NUMBER 12420 Parklawn Drive, Room 2032		DATE(S) OF INSPECTION 5/1/2023-5/12/2023*		
Rockville, MD 20857		FEI NUMBER		
		3003157498		
NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED	9	.		
Kirti Maheshwari, Chief Operating Offi	Cer I STREET ADDRESS			
Intas Pharmaceuticals Limited		s 457, Sarkhej - Bavla	a Highway	
CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLISHMENT INSPECTED		est a complete control to the state of the control to the control	
Ahmedabad, Gujarat, 382210 India	Drug Man	ufacturer		
campaign. A justification was not provided produce tablets of intended quality. (b) % an however, a justification was not provided for have authorized access to change parameter changes are within parameters but are not d (BMR) as required. Changes on the Program "Change Report" which is not attached to the checks are not always documented when che the quality of the tablets being produced. For the quality of the tablets being produced. For initiated April 13, 2023, at from (b) mm to (b) mm an in (b) (4) was collected but not addressing testing of tablets in (b) (4) for LHS/S1 are However, the changes are not (b) (4) the documented (b) (identified as a critical process for the change. At (b) (4) whe sample for justification was not provided was taken after the (b) (4) was	demonstrating d (b) % low and or the limit selects when manufactor mable Logical he BMR or revitanges are made or example, and (b) (4) (4) (A) (b) (4) (c) (A) (d) (e) (f) (f) (f) (f) (f) (g) (g) (g) (g) (g) (g) (g) (g) (g) (g	rablets USP (b) (4) for RI (b) (4) (b)	eginning of a anner will e observed; in personneling. The acturing Record ared on the on, in-process did not impact is red justification an in-process locumented eess sample	
SEE REVERSE Rita K Kabaso, Investigation of THIS PAGE Justin A Boyd, Investigation Arsen Karapetvan, Investigation	tor	Justin A Boyd Investigator Signed By 2003356666 Jule Signed 05-12-2-023	5/12/2023	

Drug Cadre

	DEPARTMENT OF HEA	LTH AND HUM UG ADMINISTRAT		
DISTRICT ADDRESS AND PHON	NE NUMBER	OG ADMINISTRAT	DATE(S) OF INSPECTION	
	awn Drive, Room 2032		5/1/2023-5/12/2023*	
Rockville, MI	20857		FEI NUMBER 3003157498	
			1 TO THE STATE OF	
NAME AND TITLE OF INDIVIDUA			•	
	wari, Chief Operating Office			
FIRM NAME		STREET ADDRESS		
Intas Pharmac	ceuticals Limited	458 Plot	ts 457, Sarkhej - Bavla Highway	
1 mars 200 mm	ijarat, 382210 India	197079 1990-1775	mufacturer	
2. A (b) (4) -batch campaign (b) (4) (b) (4) mg tab on (b) (4) (challenge was conducted on the which was initiated on April 28, 2023, at (b) (4) using a (b) % rejection limit. At (b) (4) (4) (b) %. The BMR does not contain a contemporaneous justification for the change. Additionally, at (b) (4) (h) (h) (h) (h) (h) (h) (h) (h) (h) (h				
There is a failure to thoroughly review any unexplained discrepancy whether or not the batch has been already distributed. A)Investigations conducted when rejects from visual inspection exceeded total reject limits did not characterize the particles in rejected vials. They were closed with no root cause and implement no preventive actions: 1.Deviation MA/DF/2023/0013 - (b) (4)				
9	ř		Tr.	
SEE REVERSE OF THIS PAGE	EMPLOYEE(S) SIGNATURE Rita K Kabaso, Investigato: Justin A Boyd, Investigato: Arsen Karapetyan, Investig	r	dicated X Justin A Boyd Signed By 2000358686 Justin G 19:12-2023	

Drug Cadre

DEPARTMENT OF HE ALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION				
DISTRICT ADDRESS AND PHONE NUMBER	DATE(S) OF INSPECTION			
12420 Parklawn Drive, Room 2032	5/1/2023-5/12/2023*			
Rockville, MD 20857	FEI NUMBER 3003157498			
NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED	<u>I</u>			
Kirti Maheshwari, Chief Operating Officer				
FIRM NAME	STREET ADDRESS			
Intas Pharmaceuticals Limited	458 Plots 457, Sarkhej - Bavla Highway			
CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLISHMENT INSPECTED			
Ahmedabad, Gujarat, 382210 India	Drug Manufacturer			

12/24) due to exceeding the total rejection limit of (b) % with a result of (b) % and exceeding the individual limit for black particles of (b) % with a result of (b) %. The black particles were not isolated and identified to allow for a thorough root cause analysis. The investigation was closed without identifying a root cause for the black particles.

3.Deviation MA/DF/2022/0073 - (b) (4) lot (b) (4) (European Market) due to exceeding the limit for total particulate with a result of (b) % compared to a limit of (b) % and white particles with a value of (b) % compared to a limit of (b) %. The product was filled on Line (b) in the General parenteral facility which is used for aseptic filling of US products. An R&D study confirmed the white particles in reject vials were not product or process related, but did not characterize their composition or identify potential sources.

The batch was reinspected a second time and yielded no additional vials with white particles. A third 100% visual inspection identified 143 additional vials with white particles. The investigation did not thoroughly evaluate why these vials were not detected during the first two 100% visual inspection or the impact to other batches that had been inspected using the same visual inspectors. The R&D study did not identify these as particles that had precipitated from the product.

4.Deviation MA/DF/2023/0019 - (b) (4) Injection lot (b) (4) (European Market) due to exceeding the total rejection limit of (b) (4) % with a result of (b) (4) %, exceeding the individual limits for white particle of (b) (4) % limit with a result of (b) (4) %, and exceeding the glass particle limit of (b) (a) % with a result of (b) (b) (c) (d) %. The product was filled on Line (b) in the General parenteral facility, which is used for aseptic filling of US products. The investigation did not isolate or identify the white particles to allow for a thorough evaluation of the root cause. The filling record did not identify any glass breakage events. The investigation was

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DATE ISSUED 5/12/2023

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DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION			
3 ADMINISTRA	DATE(S) OF INSPECTION 5/1/2023-5/12/2023* FEI NUMBER		
	3003157498		
STREET ADDRESS			
458 Plot	s 457, Sarkhej - Bavla Highway		
19209 0045.715	ent inspected nufacturer		
the white pa	articles or the glass particles.		
5.Deviation MA/DF/2023/0030 - (b) (4) Injection lot (b) (4) (European Market) due to exceeding the total rejection limit of (b) (4) (with a result of (b) (a) (with a result o			
(G vestigate the vidual defect ect the history	or all trending in 2021 and 2022 for liquid General), demonstrating the process was a sources of the batch to batch variation in ct categories are evaluated during this		
	Injection % with a result of for aseptic icles to allow any glass the white particles white particles and to his product is conducted below (b) for extigate the vidual defect the history and the whole of the conducted below (b) for extigate the vidual defect the history and the whole of the conducted below (c) the conducted below (d) for extigate the vidual defect the history and the conducted below (d) for extigate the vidual defect the history and the conducted below (d) for extigate the vidual defect the history and the conducted below (d) for extigate the vidual defect the history and the conducted below (d) for extigate the vidual defect the history and the conducted below (d) for extigate the vidual defect the history and the conducted below (d) for extigate the conducted below (d) for extigated below (d) for extigated below (d) for extigated b		

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5/12/2023

DATE ISSUED

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	DEPARTMENT OF HEAL FOOD AND DRIL	TH AND HUMA G ADMINISTRATION		
DISTRICT ADDRESS AND PHO	NE NUMBER	3 ADMINISTRATIC	DATE(S) OF INSPECTION	
	2420 Parklawn Drive, Room 2032		5/1/2023-5/12/2023* FEI NUMBER	
ROCKVIIIE, M	ckville, MD 20857		3003157498	
NAME AND TITLE OF INDIVIDUA				
Kirti Mahesh	wari, Chief Operating Officer	STREET ADDRESS		
	ceuticals Limited		s 457, Sarkhej - Bav	la Highway
Ahmedabad. Gi	ujarat, 382210 India	Drug Manu		
Timile dabada, o.	ajarae, sozzie mara	Drug Ham	aruotarer	
investio	ated to identify root causes or assess	s the impact	on the product and comp	onents present
	ne of excursions, including open via		, and sterile stop	
	will automatically stop if the limits			, but there
	ocedure to remove any open contain			A provide A straight of
	cursion. Examples included:	1		11-8
116-01				
1.Du	ring the aseptic filling of (b) (4)	Injection 1	batch (b) (4) (US Ma	arket, expiration
2	$2/26$), the limit of NMT (b) (4) μ m j		oic foot was exceeded at	the NVPC probe
(1		filling activit		1070
	. Additional excursions of t	he NMT (b)	(4) μm particles/cubic t	foot limit were
observed during the aseptic filling of this batch at the (b) (4) probe, the probe at				
t	the (b) (4), and the probe at			· V Market I accommodate
	, 11000 to 11 • 11000		-	
2.Du	ring the aseptic filling of (b) (4)	Injection 1	batch (b) (4) (US Ma	arket, expiration
2/25), the limit of NMT (b) (4) µm particles/cubic foot was exceeded at the NVPC probe				
(1	during f	filling activit		
				Additional
	excursions of the NMT (b) (4) µm p	oarticles/cub	ic foot limit were observ	ed during the
a	aseptic filling of this batch at the (b) (4) F	probe, the probe at the (b)	(4)
a	and the probe at the (b) (4)		and a suite common the assessment — Marcon some reasonable a transfer a second and the common of the	
3.Du	ring the aseptic filling of (b) (4)	Inject	tion batch (b) (4) (U	S Market,
6	expiration 6/25), the limit of NMT (b) (4) µm pa	articles/cubic foot was ex	ceeded at the
0	I and the second			T
SEE REVERSE	Rita K Kabaso, Investigator		I	5/12/2023
OF THIS PAGE	Justin A Boyd, Investigator		Justin A Boyd Investigator	5,12,2025
	Arsen Karapetyan, Investigat	tor - Dedi	cated x Signed By 2000359686 Date Signed 05-12-2023 D9 12 20	
l	Drug Cadre			
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FORM FDA 483 (09/08)	PREVIOUS EDITION OBSOLETE INS	SPECTIONAL O	BSEKVATIONS	1 110E 7 01 27 FAGES

	DEPARTMENT OF HEAL FOOD AND DRUG			ES	
DISTRICT ADDRESS AND PHO	ONE NUMBER		DATE(S) OF INSI		
Rockville, M	awn Drive, Room 2032		5/1/202 FEI NUMBER	23-5/12/2023*	
ROCKVIIIE, III	20037		3003157	7498	
NAME AND TITLE OF INDIVIDUA	AL TO WHOM REPORT ISSUED				
Kirti Mahesh	wari, Chief Operating Officer				
FIRM NAME		STREET ADDRESS	Tal foodiffice .		And there are
The second secon	ceuticals Limited		s 457, Sarkhej - Bavla Highway		
CITY, STATE, ZIP CODE, COUN		TYPE ESTABLISHME Drug Man	554 FT 1 179		
Allinedabad, Gi	ıjarat, 382210 India	Drug Mail	uracture	2T	
7	NVPC probe (b) (4)	35 tin	nes while	filling was occurr	cing on July 26
	2022.	35 til	iics willic	mining was occur	ing on July 20,
-	2022.				
The control of the co	ve been no effective measures taken	Carried States and Carried States			
•	rming organisms in the aseptic proc			7.5 S	
	ations of spore forming organisms i			N	
identific	ations of spore forming organisms i	n the (D) (4)	Pare	nteral manufactur	ing from
January	2020 to April 2023.	A7-			
E)Investigat	tion MA/DF/2022/0080 into (b) (4)			for (b) (4)	mg
tablets b	eatch (b) (4) did not evaluate the	e actual para	ameters se	et by the production	on operator
during (b) (4) In addition, adequacy of the established sampling process was not evaluated.					
(b) (4)	for Lot (b) during (b) (4)	Wa	as (b) %v	w/w, specification	: (b) %w/w to
(b) %v	v/w. The operator failed to identify t	hat a devia	tion had o	occurred and proce	eded with
(b) (4)	. The batch was released base	ed on (b) (4)			ting in-process
specification and the final batch meeting specification		Additiona	al Lot b samples v	were sent for	
testing; however, the investigation fails to address sam					
between the initial certificate of analysis and the addit		d the addition	onal samp	oles. The release C	oA is dated
October 6, 2022, with (b) (4) result		ppm. 7	The additional test ecification NMT ^{(b}	of Lot b was	
approved October 19, 2022, with (b) (4) result of (b) (4)		sult of (b) (4)	ppm (spe	ecification NMT (b)) (4) ppm).
			Mileson Appendix	# N * * * * * * * * * * * * * * * * * *	
F)Investigat	mg tablets batch (b) (4)	ırfaces bein	g observe	ed while (b) (4) lo	ot of
(D) (4)	mg tablets batch (b) (4)	failed	to include	an evaluation of	the $(0)(4)$
(b) (4)	and time set by the operator. Grad	iuai mereas	e of decre	ease of mese parar	meters are left
to the or	perator's discretion. In-process samp				
0.000	on the tablets have no scientific basis. It is unknown when the batch samples began				
	out of specification for roughness a				
appeara	nce. The investigation was not exten	ided to Lot	which w	vas manufactured	before Lot .
<u>. </u>				T T	T
SEE REVERSE	Rita K Kabaso, Investigator			I	5/12/2023
OF THIS PAGE	Justin A Boyd, Investigator			Justin A Boyd Investigator	5/12/2025
	Arsen Karapetyan, Investigat	tor - Dedi	icated	Signed By 2000358686 Date Signed 05-12-2023 D9 12 20	
	Drug Cadre			Washington Actions	
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FORM FDA 483 (09/08)

PREVIOUS EDITION OBSOLETE

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	DEPARTMENT OF HEAL FOOD AND DRU	. TH AND HUM . G ADMINISTRAT	
DISTRICT ADDRESS AND PHON			DATE(S) OF INSPECTION
	vn Drive, Room 2032		5/1/2023-5/12/2023* FEI NUMBER
Rockville, MI	MD 20857		3003157498
NAME AND TITLE OF INDIVIDUA			
FIRM NAME	wari, Chief Operating Officer	STREET ADDRESS	
Intas Pharmac	ceuticals Limited		ts 457, Sarkhej - Bavla Highway
Transmissioners of the property of		A STATE OF THE PARTY OF THE PAR	
Ahmedabad, Gu	ijarat, 382210 India	Drug Man	nufacturer
Per Quality, Lot was released for distribution on October 30, 2021, based on the lot meeting i process and finished product specifications. Lot was released for distribution to the US Marks without assessing dissolution and impact of inhomogeneous without assessing dissolution of the US Marks without assessing dissolution and impact of inhomogeneous was released for distribution to the US Marks without assessing dissolution and impact of inhomogeneous was approved. A second with recommendation of the batch records and with records and without assessing and product that of the understanding with records and without and with records with records and without and without and with records with r			
SEE REVERSE OF THIS PAGE	EMPLOYEE(S) SIGNATURE Rita K Kabaso, Investigator Justin A Boyd, Investigator Arsen Karapetyan, Investigator Drug Cadre	tor - Ded	dicated Justin A Boyd 5/12/2023 5/12

	DEPARTMENT OF HEAI FOOD AND DRU	LTH AND HUM.		
DISTRICT ADDRESS AND PHOP 12420 Parklav Rockville, MI	me Number Vn Drive, Room 2032		DATE(S) OF INSPECTION 5/1/2023-5/12/2023 FEI NUMBER 3003157498	3*
NAME AND TITLE OF INDIVIDUA Kirti Maheshv	L TO WHOM REPORT ISSUED Vari, Chief Operating Office			
Intas Pharmad	ceuticals Limited	The second secon	ots 457, Sarkhej - Bavla Highway	
CITY, STATE, ZIP CODE, COUN Ahmedabad, Gi	ny njarat, 382210 India	Drug Man	ent inspected ufacturer	
tests are "Handling cause.	otoxin tests are invalidated due to s repeated, without documenting a L ng of Laboratory Incidents" to allow	Laboratory L	ncident according to the	e MA/GQC/00073
Your firm failed to assure that th	OBSERVATION 3 Your firm failed to establish adequate written procedures for production and process controls designed to assure that the drug products have the identity, strength, purity, and quality that they are purported or represented to possess.			
	validation studies executed to assur oriately designed and executed. For		drug quality is achieved	lare
1. All (b) process validation for (b) (4) contain scientific justifications for the establishment of: (b) (4) uniformity sample size and frequency, %RSD established for inter batch variability, and (b) (4) and increase or decrease of (b) (4) for the (b) (4) is left to the discretion of the operator. For example, Batch (b) (4) (c) (d) (d) (e) (f) (f)) fail to sample size and and (b) (4)	
(b) (4) (c) (d) (d) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e				
addi varia		ablets used i	s not statistically sound No documented evidenc	. Furthermore,
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DISTRICT ADDRESS AND PHONE NUMBER 12420 Parklawn Drive, Room 2032	DATE(S) OF INSPECTION 5/1/2023-5/12/2023*	
Rockville, MD 20857	FEI NUMBER	
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NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED Kirti Maheshwari, Chief Operating C	Officer	
FIRM NAME	STREET ADDRESS	
Intas Pharmaceuticals Limited CITY, STATE, ZIP CODE, COUNTRY	458 Plots 457, Sarkhej – Bavla Highway	
Ahmedabad, Gujarat, 382210 India	Drug Manufacturer	
and MA/DF/2021/0086 have been and rough tablets being observed. 2. (b) (4) Table		
approved February 7, 2020) fails to establish statistically sound sampling plans (b) (4) uniformity, content uniformity, dissolution etc.), %RSD for inter batch results, minimum and maximum batch size for compression (b) (4) and (c) (4) which is determined by the production operator. For example, compression is performed on a (b) (a) percent of the commercial batch size was used to compress tablets at minimum (b) (4) and maximum (b) (4) and m		
Process validation studies have not included establishment of criteria to evaluate intra-batch or inter-batch variability. For example:		
a) $^{(b)}(4)$ Ointment $^{(b)}_{(4)}$ $^{(b)}_{(4)}$ g :		
The content of (b) (4) impurities (limit of NMT (b) %) showed inter-batch variability with higher values for batch (b) (4) with a range of the (b) (a) samples from (b) %-(b) %, compared to (b) (4) % for batch (b) (4) % for batch (c) (a) % for batch (d) % for batch (d) % for batch (e) (a) % for batch (d) % for batch (e) (a) % for batch (d) % for batch (e) (a) % for batch (d) % for batch (e) (a) % for batch (d) % for batch (e) (a) % for batch (d) % for batch (e) (a) % for batch (e) (
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	mished product sample at (b) (a) (b) (d) (b) (d) (limit NMT (b) (d) (b) (d) (d) (d) (e) (d) (e) (d) (e) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	the (b) sample below there was inter-bated was (b) % and for (c) varied from (b) (d) sample of bate (d)	bw the detection limit h variability as the hi	t and the ighest total s (b) %.
b) (b) (4) Ointment (b) % (b) g: The (b) (4) (limit NMT (b) %) showed intra-batch variability with the sample from batch (b) (4) having a (b) (4) at the (b) of filling of (b) %, while the (b) sample was (b) (a) had a (b) (4) at the (b) (4) of filling of (b) %, while the (b) (4) sample was (b) (5) (4) %. There was no evaluation of why the initial samples appeared to have a higher (b) (4) . Variation in viscosity was not considered. Only (b) (4) samples were tested for viscosity.			e the (b) ng of (c) ng of (4) itial samples	
particle	ation of the visual inspection procesizes representative of the typical desizes particles. EMPLOYEE(S) SIGNATURE Rita K Kabaso, Investigator Justin A Boyd, Investigator Arsen Karapetyan, Investigator Drug Cadre	efect types observed icle) to determine th	during visual inspected threshold that the p	ction (black
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Ahmedabad, Gujarat, 382210 India Drug Manufacturer			

detect.

- 1. Defects kits used during qualification of the (b) (4) automated visual inspection equipment used rejected vials taken from previous batches, without knowing the size of the particles. This equipment has been used to visually inspect (b) (4) ml and (b) (4) ml batches for the US market.
- 2. Defect kits used during qualification of the manual visual inspectors includes vials containing particles of unknown sizes and a standard containing a (b) (4)

 µm particle that is not representative of the types of defects typically detected during visual inspection.

Additionally, reference defect libraries have not been established.

- C) Annual Product Quality Reviews lack statistical evaluation to identify outliers and trends that will recognize and investigate variability in the process. For example:
 - 1. In the (b) (4) Injection Annual Product Quality Review there was no further investigation into why three batches had higher Impurity (b) levels, one batch appeared to be an outlier for filling time, and there appeared to be shift in the (b) (4) testing results.
 - 2. The (b) (4) Cream Annual Product Quality Review recognized variability in the viscosity data, but did not thoroughly evaluate the causes for the variability.

OBSERVATION 4

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

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NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED	<u>.</u>			
Kirti Maheshwari, Chief Operating Officer				
FIRM NAME	STREET ADDRESS			
Intas Pharmaceuticals Limited	458 Plots 457, Sarkhej - Bavla Highway			
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. (b) (4)	(b) (4)			
	used to support (b) (4) sterilization of (b) (4)			
finished drug product. The adequacy of ster	dization for areas that could be considered worst case			
locations for (b) (4) OP-018 and C	P-125 is unknown. For example,			
1. (b) (4) OP-018 (b) (4) Steri	lization) located on parenteral line- is equipped with			
$a \pmod{b}$ transfer port. The $\binom{(b)(4)}{4}$	transfers open/empty vials from the (b) (4) to the			
mobile filling (b) (4) Performance qua	lification executed using PQR-OP-018-12/06 fails to			
ensure adequate sterilization of the (b) (4)	. Chemical indicator and biological indicators were			
not placed at the $\binom{(b)}{4}$ of the $\binom{(b)(4)}{4}$ transfer	risfer port for (b) (4) based on equipment			
- (4)	ister port for the based on equipment			
design.				
- (b) (d)	(b) (b) (b) (d)			
2. (b) (4) OP-125 is equipped with a (b) mm (b) (4) transfer port (b) (4). The port is used to transfer components to the filling (b) (4). During (v) (4) sterilization, the (b) (4) port is				
used to transfer components to the filling (b) (4) . During (b) (4) sterilization, the (b) (4) port is				
opened for (b)(4) qualification conducted on November 2, 2022, fails to				
address adequate sterilization at the (b)	of the port. Based on the equipment design, the (b) of			
the (b) (4) port was not assessed as one of	of the worst-case locations Additionally on May 9			
2023 an averlan/folding of the (b) (4)	the (b) (4) port was not assessed as one of the worst-case locations. Additionally, on May 9, 2023, an overlap/folding of the (b) (4) was observed near the area where the (b) (4) attaches			
to the (b) (4) . The (b) (4) has be	gen in this condition since November 7, 2020.			
	022, failed to address adequate (b) (4) sterilization of			
the overlap/fold.				
B) There is no assurance that your process	simulation studies (media fills) performed in your			
	Block are representative of the current commercial			
	manufacturing operations. The validation plans for your media fill studies do not appear to			
adequately incorporate the nature and frequency of interventions incorporating worst-case				
activities and conditions with respect to operator interventions, such as start and stop time of				
interventions performed and the total time for interventions performed during media fill and				
commercial batches. Additionally, per SOP No. MA/GQA/00061-5, titled "Aseptic Process				
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Simulation (Media Fill)", effective date 03/27/2026 describes qualification activities for operators to include "at least any (b) of the critical interventions where there is high risk of contamination due to the activity performed", however, your media fills study reports do not document/verify the performance of the corrective and non-corrective (routine) interventions carried out by each operator.

C) There is no evaluation of the air flow patterns in the (b) (4) LAF where (b) (4) of (4) are unloaded from the Mobile LAF into a Grade B area before transfer into the filling RABS on Line (b) in the General Parenteral facility. The mobile LAF has not been evaluated under dynamic conditions during the smoke studies.

OBSERVATION 5

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

- 1.A (b) (4) machine is used to apply the sporicidal disinfectant in the Grade B areas of the aseptic filling rooms. The process was qualified in a non-representative room in the microbiology laboratory and not in the aseptic filling rooms where it is used. The study could not evaluate if the air flow, equipment, or room design allow for the sporicidal to effectively cover all surfaces using the (b) (4).
- 2.Blue wipes used for cleaning and disinfection of surfaces in the aseptic areas were observed to have loose fibers and fraying threads.

OBSERVATION 6

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

The (b) (4) RABS on General Parenteral aseptic filling Line (b) is where the sterile stopper bowl and

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exposed sterile stoppers are located throughout aseptic filling. There is a lack of scientific rationale for only collecting (b) non-viable particle count in this RABS (b) (4) during aseptic filling operations.

OBSERVATION 7

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.

GMP related computerized systems and equipment have not been validated/qualified to demonstrate the suitability of computer hardware and software to perform assigned tasks. For Example:

- A) The firm has initiated an assessment to evaluate data integrity controls for your manufacturing equipment in (b) (4) and general parenteral blocks per Protocol No. ISP/2022/0190, titled "Protocol for Review and Impact Assessment of Quality System", dated 12/29/2022, where deficiencies regarding individual access controls and privileges, restrictions for changing clocks, saving electronic data, and audit trails have been identified. However, the quality unit has not implemented interim controls as a result of this assessment. For example:
 - 1. Your firm operates (b) (4) portable non-viable particle monitoring equipment used to perform and generate test data for non-viable particle (NVP) count used in environmental monitoring/cleanroom qualification activities in class B, class C, and class D areas in support of general and (b) (4) parenteral manufacturing operations. During our review of your (b) (4) equipment and software, it was observed that the firm was not aware of the equipment data storage capability and consequently does not review or backup the electronic data generated and stored on the equipment, only using printer printouts as primary data. Per your firm's management, the data capability storage for this equipment is up to 1000 tests, after which the data is overwritten with the most recent data. After our identification of this discrepancy during the inspection, your firm initiated a deviation investigation. Your

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preliminary review of this data during the inspection resulted in instances where some electronic data from the equipment does not appear to have been attached to data packages where testing was performed.

- 2. Your firm operates (b) (4) leak test equipment used to perform container closure integrity testing for products manufactured in your general and facilities. During our review of your (b) (4) parenteral manufacturing equipment and software, it was observed that the firm was not aware of the equipment data storage capability and consequently does not review or backup the electronic data generated and stored on the equipment, only using printer printouts as primary data. Per your firm's management, the data capability storage for this equipment is only one test, after which the data is overwritten with the most recent data.
- 3. Your firm operates (b) (4) filter integrity test equipment in support of general and parenteral manufacturing operations. During our review of the equipment and software, it was observed that the firm was not aware of the equipment data storage capability and consequently does not review or backup the electronic data generated and stored on the equipment, only using printer printouts as primary data. Per your firm's management, the data capability storage for this equipment is up to 200 tests, after which the data is overwritten with the most recent data.
- 4. Your firm operates (b) (4) integrity test equipment in support of general and parenteral manufacturing operations. During review of the equipment and Linux software, it was observed that the firm does not review the electronic data generated and stored on the equipment, only using the printer printouts as primary data.
- B) The firm has initiated an assessment to evaluate data integrity controls for your laboratory

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equipment, however the quality unit has not implemented interim controls as a result of this assessment. The titrator instruments are standalone systems used for (b) (4) and assay testing. The instruments have the ability to electronically store results data, but this function was not utilized until just recently during the inspection. Instead, the process relied on the paper printouts without having any second check that can ensure all print outs are maintained and reported.

OBSERVATION 8

Routine checking of automatic, mechanical and electronic equipment is not performed according to a written program designed to assure proper performance.

- A) Periodic performance qualification is not adequately performed to ensure that (b) automated visual inspection machines are performing as intended. Per MA/GOA/00016-4, performance verification is conducted "as expected under simulated real-world conditions". However, evaluation of the qualification documents revealed that periodic verification is conducted using operation qualification parameters, which include evaluating the physical condition of the machine, operational ranges, and safety features of the equipment. A logical explanation was not provided demonstrating that the current periodic performance process is suitable. During initial performance qualification, a defect kit was generated however, qualification conducted was inadequate. For example,
 - 1. (b) (4) S-1248 qualification report (PQR-GS-1248-01) approved on May 26, 2016, failed to include assessment of rough surface, color, and shape variation. Specifically, for the round (b) (4) tablets, (b) defect tablets were created and challenged on the equipment. A justification is not provided for the quantity selection for each defect or detailed instructions on how the defect kit will be generated. After challenge of the (b) (4) defect tablets, (b) (4) tablets were run on the equipment: for run (b), 165 tablets were

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rejected and (b) (4) were passed as good tablets. The good tablets were not inspected to ensure that defects were adequately removed. The equipment was not challenged for printed tablets. The equipment is used to visually inspect printed tablet. Periodic qualification which consists of checking the equipment and safety features was conducted on June 3, 2022, under protocol EPQR-GS-1248-02/01. A logical explanation was not provided demonstrating how the current process simulates actual manufacturing conditions where tablets are inspected by the equipment and released for distribution.

Performance qualification for the following visual inspection machines were qualified as the example given above: (b) (4)

2. Specifically, (b) (4) S-1246, performance verification report PQR-GS-1246-02 was approved on December 6, 2022. The qualification conducted is inadequate as the quantity sample size for each defect is not selected based on historical trend data. Printing defect was not part of the evaluation. Additionally, evaluation of thickness and shape variation is inadequate. Furthermore, the inspected tablets which were considered free of defects were not physically inspected to ensure defected tablets are removed.

Prior to commercial batch visual inspection, the visual inspection machine is challenged with (b) defect tablets. However, this evaluation fails to include defects containing rough surfaces, color, or shape variation. Additionally, production operators confirmed that only the majority defect rejection category is documented in the batch record. Examples of complaint investigation documented regarding foreign tablets include MA/MC/2019/0458, MA/MC/2021/0221, and MA/MC/2023/0036.

B) Installation, operation and performance qualification is not conducted after (b) (4) tablet testers

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not fixed installating performs equivaled provided IPQC ar 2023 at (Domest (b) (4) resinitiated released C) Your firm and gend monitors test equivalificate equipments suitabilities ince the	d and can move around the hold ion, operation and performance qualed on the equipment. A scientific just to performance qualification and d. On April 20, 2023, heat to heat to heat to heat area. Calibrate area. Calibrate 3:24PM. At 3:33PM the equipment for the continuous out of specifical after satisfactory finished product heat the heat to	rocalification is astification is astification in I that the equation was personal was used to rocess tests a investigation. Per the result." Table particle (NVP) cores in class Electronic integral (4) pare seen adequates a result, the gned tasks ant.	illustrating that calibration uipment will function as 202 was moved from generation of test (b) (4) be failed (b) (4) specification MA/DF/2023/0178 (in a investigation (b) (4) be monitoring equipment upon used in environmental cases C, and class D are rity testing and (b) (4) enteral manufacturing operately performed, with at less that are quality Unit has not defined has not reviewed the contraction of the property of the property of the performed of the performance of the per	t is moved, on verification is a conducted is intended was not eral compression on April 20, eatch (b) (4) tions: (b) to otterim) was shall be used to perform all eas, (b) (4) leak filter integrity erations. The east one emonstrated the electronic data
Your Quality U	Jnit has not been effective in carry	ying-out its	duties of ensuring that of	drug products are
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manufactured in accordance with current good manufacturing practices (cGMP) to ensure safety, efficacy, purity, and overall quality of drug products manufactured at your firm. This is demonstrated by observed deficiencies in your Quality Unit responsibilities related to controls on review of production data, conducting investigations and assessments, and conducting activities per written procedures. The inspectional observations listed on this form document that your firm have not performed the adequate assessments/reviews to ensure the quality of drug products manufactured and tested at your firm. For Example, but not limited to:

Supervisory oversight over quality/production unit operations and laboratory electronic system and data is deficient. For example,

A)During the inspection, we observed multiple incident reports where HPLC and GC testing operations were interrupted during testing. At times, due to these interruptions and the investigation process, fresh sample preparations were prepared for testing, in which at least one incident fresh preparations were prepared for related substance testing even though the initial standard and sample solutions were within expiry time, without adequate justification. Your firm performed an assessment of chromatography system interruptions during the current inspection, Report No. ASR-LCE-01-23-01, titled "Report for the Retrospective Assessment and Investigation of Laboratory Incidents due to Communication Errors", dated May, 9, 2023, however this assessment does not consider laboratory incidents in categories such as "data processing error", "hardware error", "power failure", and "software malfunctioning", for which your firm has initiated approximately 200 such laboratory incidents for the since January 2022. As a result, your firm has not demonstrated understanding of the different types of communication errors and circumstances which may lead to interruptions.

B)The Quality Unit lacks adequate control over the issuance of worksheets and logbooks in support of manufacturing operations which are purported to be controlled by your quality unit under SOP No. MA/GQA/00047-5, titled "Issuance and Reconciliation Procedure for Log book, Register,

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DISTRICT ADDRESS AND PHONE NUMBER	DATE(S) OF INSPECTION
12420 Parklawn Drive, Room 2032	5/1/2023-5/12/2023*
Rockville, MD 20857	FEI NUMBER 3003157498
NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED	
Kirti Maheshwari, Chief Operating Officer	
FIRM NAME	STREET ADDRESS
Intas Pharmaceuticals Limited	458 Plots 457, Sarkhej - Bavla Highway
CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLISHMENT INSPECTED
Ahmedabad, Gujarat, 382210 India	Drug Manufacturer

Worksheet and Loose form", effective date 03/29/2023. For example, during the inspection, we observed that visual inspection forms for vial and (b) products are issued to your general parenteral production without adequate QA control, in that production personnel are responsible for storge, issuance, and reconciliation of these forms.

- C)Your firm maintains and utilizes Chromeleon Enterprise 7.2 SR5, a networked chromatography data software system, which is used to perform HPLC and GC testing for raw material, inprocess, and non-sterile and sterile finished drug product testing. Your current data is organized under a "FP" folder for finished product, with each sample set followed by the next sequentially, making data review inefficient during the inspection. There is no consideration for adequate data review procedures, which include an adequate organization of test data with respect to different products or different types of tests. This practice is a gap in your Data Integrity Program.
- D)There is no adequate data integrity program in place to include a statistically sound comprehensive review of all electronic data by the Quality Assurance Unit for standalone and network systems, to ensure completeness, consistency, and accuracy of all chromatographic and non-chromatographic electronic data generated by the Quality Control Laboratory. Specifically, per your firm's procedure, only QC unit personnel perform review of electronic data, after which the Quality Unit completed a hardcopy checklist confirming QC review. No electronic data is reviewed by the Quality Assurance unit, whether batch to batch, or an established time frame.

E)In (b) (4) Dosage-(, (b) (4) testers are used to analyze in-process tablet samples for of compressed tablets. Between April 1 to 10, 2023, (b) (4) system contained the following instances that were not reviewed by quality to ensure that data generated and reported is accurate: Balance time out error, 201 times; and Magazine not in inner position error 28 times.

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Justin A Boyd, Investigator
Arsen Karapetyan, Investigator - Dedicated
Drug Cadre

Justin A Boyd investigator Signed by 2003358686 Date Stoned 05-12-2023 DATE ISSUED 5/12/2023

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	DEPARTMENT OF HEAL FOOD AND DRU			ES	
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Intas Pharma	ceuticals Limited			Sarkhej - Bavla	a Highway
CITY, STATE, ZIP CODE, COUN		TYPE ESTABLISHME			
Anmedabad, Gi	ujarat, 382210 India	Drug Man	uractur	er	
quality. Specific (b) mg ba another measure captured	This data captures the number of in ally, on January 11, 2023, the followatch (b) (4) LHS ample was started at (c) (4) ment was started (measurement not lat (b) (4) In-process quality assure explanation why the equipment factor	-process teswing measuralysis was (measurer finished). It	ts started rement w started (i nent not Measuren production	vere initiated for ^(b) measurement not f finished), and at ^(b) ments for LHS and on personnel failed	ch. (4) inished), (1) RHS RHS were
are man	specific in-process timepoint analyst ually entered in the electronic Batch generated is attached to the BMR, ho	Manufactu	ring Rec	ord. The pdf of the	e in-process
	ON 10 utensils are not maintained at approidentity, strength, quality or purity		The second state of the second	event contamination	on that would
A)The (b) (4) 2023. A are load	associated with (b) (4) ir could be felt moving from the Greed, to the Grade D technical area alo	ade A side	of the wa	not sealed to the vill, where (b) (4)	wall on May 1, vials
	for filling Line etely installed gaskets in the (b) (4) e Grade C room.	e (b) (Gene (4) zone, wh		lity) had a missi ntended to seal th	
	s a gap in the cover intended to pro-	tect the vial	s from th	e Grade C enviror	nment after vial
SEE REVERSE OF THIS PAGE	EMPLOYEE(S) SIGNATURE Rita K Kabaso, Investigator Justin A Boyd, Investigator Arsen Karapetyan, Investigator Drug Cadre	tor - Dedi	icated	Justin A Boyd Investigator 2000358666 Date Signed 05-12-2023 D9 12 20	DATE ISSUED 5/12/2023
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12420 Parklawn Drive, Room 2032	5/1/2023-5/12/2023*		
Rockville, MD 20857	FEI NUMBER 3003157498		
NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED			
Kirti Maheshwari, Chief Operating Offi	Cer I STREET ADDRESS		
Intas Pharmaceuticals Limited	cals Limited 458 Plots 457, Sarkhej - Bavla Highway		
CITY, STATE, ZIP CODE, COUNTRY Ahmedabad, Gujarat, 382210 India	Drug Manufacturer		
permit viewing of all aseptic operations via win			

The procedures for the annual quality standards record evaluation are deficient in that they do not address a review of a representative number of approved and rejected batches.

The current process metric used to annually evaluate product quality consistency is inadequate. Annual product reviews are conducted using procedure MA/GOA/00015 which fails to address inter and intra batch variation. Section 7.7 indicates that a statistical evaluation (95% confidence interval) is evaluated for $\geq_{(4)}^{(b)}$ batches manufactured within the APQR review year. Quality affirmed that if less than $_{(4)}^{(b)}$ batches are manufactured consecutively for multiple years a statistical evaluation will not be conducted. Specifically, for solid dosages, a statistical evaluation is conducted for assay, and finished product weight and assay. Quality failed to provide a scientific justification why other parameters such are impurities are not evaluated. In addition, there is lack of knowledge regarding application of confidence interval to the analytical data during evaluation. For example:

mg 2022 review year, (b) batches were manufactured. Confidence Interval (CI) was applied by comparing the mean average of the (b) batches and whether the mean average is above 95%. A CI formula was not applied to the results to determine variability. Similar examples were noted with Annual product quality reviews for: (b) (4) mg, review year Oct 2021 to Nov 2022 (MA/PQR/ 2022/1160); and (b) (4) Tablets USP (b) mg, review year Oct 2021 to Sep, 2022 (MA/PQR/ 2022/1051).

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Rockville, MD 20857	FEI NUMBER 3003157498			
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FIRM NAME	STREET ADDRESS			
Intas Pharmaceuticals Limited	458 Plots 457, Sarkhej - Bavla Highway			
CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLISHMENT INSPECTED			
Ahmedabad, Gujarat, 382210 India	Drug Manufacturer			

OBSERVATION 13

Procedures designed to prevent objectionable microorganisms in drug products not required to be sterile are not.

There is no routine identification of the microorganisms recovered from the purified water system to understand the microbial flora. Identification to a genus and species level occurred during 2022 and has not occurred in 2023.

There is no further investigation when Gram negative organisms that could produce biofilms were identified in the purified water systems, including: *Burkholderia kururiensis, Ralstonia pickettii, Acinetobacter baumannii*, and *Sphingomonas paucimobilis*. After initial identification, these organisms are considered normal microbial flora of the water systems and if similar colony morphology is observed again, there is no identification performed. Purified water is used in cleaning of equipment used in areas that manufacture non-sterile finished drugs, including (b) (4) preparations.

OBSERVATION 14

Procedures for the cleaning and maintenance of equipment are deficient regarding the removal or obliteration of the previous batch identification.

On May 1, 2023, during the inspectional walkthrough of General (b) (4) Dosage-(b), a non-dedicated container (ID: 803) used to store raw material was observed to contain whitish residue. Per the displayed status label, the container was cleaned on May 1, 2023, prior to the inspectional walkthrough with a clean hold time of (b) (4) . The label shows that the equipment was verified clean by the production supervisor on May 1, 2023. Per production, raw materials are placed in a (b) (4) bag and then placed in the (b) (4) container which is then transferred to the manufacturing area. Traceability of potential products stored in the (b) (4) is unknown as a usage log is not kept. An assessment has not been

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CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLISHMENT INSPECTED			
Ahmedabad, Gujarat, 382210 India	Drug Manufacturer			

conducted evaluating the efficiency of cleaning and possible cross-contamination of raw materials.

OBSERVATION 15

Laboratory records do not include complete data derived from all tests, examinations and assay necessary to assure compliance with established specifications and standards.

Environmental monitoring samples were not counted accurately. On May 1, 2023, our review of plates from (b) (4) QC microbiology laboratory that had been counted by your analyst found the reported result to be less than the number of colonies on the plate. This was an interim reading. For example:

- A) Point (b) (4) Aseptic area (b) (4) -4, settle plate in the Grade C area of (b) (4) parenteral manufacturing Line-(b), associated with aseptically filled batch (b) (4) of (b) (4) Injection on April 27, 2023. The reported result was "Nil", but the plate was observed to have 2 CFU, which the analyst had marked with a marker upon reading.
- B) Point (b) Right Hand, personnel monitoring sample from Grade C area of (b) (4) parenteral manufacturing Line-(b), associated with aseptically filled batch (b) (4) of (b) (4) Injection on April 27, 2023. The reported result was 1 CFU, but the plate was observed to have 2 CFU.
- C) Point (b) Chest, personnel monitoring sample from Grade C area of (b) (4) parenteral manufacturing Line-(b), associated with aseptically filled batch (b) (4) of (b) (4) Injection on April 27, 2023. The reported result was 3 CFU, but the plate was observed to have 6 CFU.
- D) Point (b) Elbow, personnel monitoring sample from Grade C area of (b) (4) parenteral manufacturing Line-(b), associated with aseptically filled batch (b) (4) of (u) (4) Injection on April 27, 2023. The reported result was 2 CFU, but the plate was observed to have 4 CFU.
- E) Point (b) Armpit, personnel monitoring sample from Grade C area of (b) (4) parenteral

Drug Cadre	SEE REVERSE OF THIS PAGE	EMPLOYEE(S)SIGNATURE Rita K Kabaso, Investigator Justin A Boyd, Investigator Arsen Karapetyan, Investigator - Dedicated Drug Cadre	Justin A Boyd Investigator Signed By 2000356666 Date Signed 05-12-2023 D9 12 20	DATE ISSUED 5/12/2023
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DISTRICT ADDRESS AND PHONE NUMBER 12420 Parklawn Drive, Room 2032	DATE(S) OF INSPECTION 5/1/2023-5/12/2023*		
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Kirti Maheshwari, Chief Operating Office			
FIRM NAME	STREET ADDRESS		
Intas Pharmaceuticals Limited 458 Plots 457, Sarkhej – Bavla Highway			
Ahmedabad, Gujarat, 382210 India	- A 9/5 A		
F) Point (b) Chest, personnel monitoring samp manufacturing Line- , associated with asep	s 3 CFU, but the plate was observed to have 6 CFU.		
documented. Your firm has not performed analytical method va	cibility of test methods have not been established and alidation of inhouse test methods and verification of ading drug applications. The number of raw materials mately (b) (a) materials, for approximately (b) (4) methods include but are not limited to (b) (4)		
by GC, Related substance by GC, Assay by GC, A	Assay by HPLC, and Related Substance by HPLC.		

*DATES OF INSPECTION

5/01/2023(Mon), 5/02/2023(Tue), 5/03/2023(Wed), 5/04/2023(Thu), 5/05/2023(Fri), 5/08/2023(Mon), 5/09/2023(Tue), 5/10/2023(Wed), 5/11/2023(Thu), 5/12/2023(Fri)



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