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Division of Docket Management (HFA-305) Food and Drug Administration 5630 Fishers Lane, Room 1061 Rockville, MD 20852

**Reference:** FDA Draft Guidance for Industry: Data Integrity and Compliance

with CGMP; Docket: FDA-2016-D-1113

Dear Sir/Madam:

PDA is pleased to provide comments to this docket and appreciates FDA's efforts to clarify their current expectations around Data Integrity with the questions and answers in this guidance document. Detailed comments are attached and a few general issues are highlighted below.

With regards to the current draft we conclude data integrity concerns go well beyond quality control laboratories because data and metadata are generated in all departments. PDA recommends the scope of this guidance be enlarged to represent the spectrum of issues seen in warning letters and has made some specific suggestions in the attached comments. PDA also recommends FDA add a question and answer explaining the concept of data lifecycle for additional clarity and has provided a suggestion.

PDA is a non-profit international professional association of more than 10,000 individual member scientists having an interest in the fields of pharmaceutical, biological, and device manufacturing and quality. Our comments were prepared by a committee of experts with experience in pharmaceutical and biological manufacturing including members representing our Data Integrity Task Force, Regulatory Affairs and Quality Advisory Board, and Board of Directors.

If there are any questions, please do not hesitate to contact me.

Sincerely,

Richard Johnson

President and CEO, Parenteral Drug Association

Sichal M. Johnson

Cc: Richard Levy, PDA; Denyse Baker, PDA

#### **General Comments**

General Comments	Rationale	Critical Comment? Y/N
PDA recommends this guidance include data integrity examples more representative of the spectrum of issues seen in warning letters e.g.  (1) Failure to record activities at the time they are performed.	Data and metadata is generated at all departments, and data integrity goes well beyond quality control laboratories, hence it will be beneficial for all departments to have a representative example quoted as reference.	Yes
Your employees did not complete batch production and control records immediately after activities were performed. When QA reviewers noticed missing entries in the batch records, they made a list of all the missing items on separate, uncontrolled pieces of paper that were provided to the production manager. Data were later entered into CGMP documents after operations had already ended as though they had been entered at the time of the operation.		
(2) Your firm failed to ensure that all quality-related activities are recorded at the time they are performed.		
For example, an "unofficial" notebook found in the engineering office stated, "Pseudomonas present in water system" on November 26, 2014 and "water system (Activity) investigation" on November 25, 2014. Your firm was unable to provide the investigators with any documentation regarding Pseudomonas sp. found in your water system and the related investigation.		
The guidance does not discuss the concept of data lifecycle nor provide a definition.	PDA recommends FDA adds a question on What is data lifecycle? With the following answer: All phases in the life of the data (including raw data) from initial generation and recording through processing (including transformation or migration), use, review, data retention,	Yes

General Comments	Rationale	Critical Comment? Y/N
	archive/retrieval and destruction.	

Specific Comments to the Text

Line No.	Current Text	Proposed Change	Rationale	Critical Comme nt? Y/N
Q1 Line 98	For purposes of this guidance, audit trail means "who, what, when, and why"	"who, what, and when <del>and why</del> "	Please add reference to indicate this definition comes from Part 11.  Existing technology does not always allow information on why the change was made to be captured in the system itself. All metadata will not be located within the audit trail.	Yes
Q1 Line 100	For example, the audit trail for a high performance liquid chromatography (HPLC) run could include the user name, date/time of the run, the integration parameters used, and details of a reprocessing, if any, including change justification for the reprocessing.	For example, the audit trail for a high performance liquid chromatography (HPLC) run could should include the user name, date/time of the run, the integration parameters used, and details of a reprocessing, if any, including change justification for the reprocessing.	Wording changed to be consistent with line 98 which requires "who, what, when and why". The inclusion of the metadata in the audit trail should not be optional.	Yes
Q2 Lines 147-149	Any data created as part of a CGMP record must be evaluated by the	Any data created as part of a CGMP record must be evaluated by the	There should be some flexibility to allow a firm's Quality System to 1)	Yes

Line No.	Current Text	Proposed Change	Rationale	Critical Comme nt? Y/N
	quality unit as part of release criteria (see §§ 211.22 and 212.70) and maintained for CGMP purposes (e.g., § 211.180).	quality unit as part of release criteria (see §§ 211.22 and 212.70) and maintained for CGMP purposes (e.g., § 211.180).	define which GMP data should be evaluated by the quality unit and 2) define which GMP data needs to be reviewed as part of release criteria.	
Q3 Lines 157-159	Does <b>each workflow</b> on our computer system need to be validated? <b>Yes,</b> a workflow, such as creation of an electronic master production and control record (MPCR), is an intended use of a computer system to be checked through validation (see §§ 211.63, 211.68(b), and 211.110(a)).	Does each workflow on our a computer system need to be validated? "Yes, for systems used for GMP purpose in the manufacturing, testing, release, storage, distribution of materials, or in creation of data for validation, regulatory submissions, or surveillance/monitoring, the intended use of the system should be checked through validation (see §§ 211.63, 211.68(b), and 211.110(a)).	The combination of "each workflow" and "yes" is misleading Only systems used for GMP purpose in the manufacturing, testing, release, storage, distribution of materials, or in creation of data for regulatory, validation, studies or surveillance need to be validated.  Use of the term "our" is not appropriate for a general guidance.	Yes
Q4 Lines 178-181	You must exercise appropriate controls to assure that changes to computerized MPCRs, or other records, or input of laboratory data into computerized records,	You must exercise appropriate controls to assure that changes to computerized MPCRs, or other records, or input of laboratory data into computerized records,	The text as written gives the appearance of leaving out a broad section of GMP data such as PM/Cal data, and inventory records, and seems to be focused	Yes

Line No.	Current Text	Proposed Change	Rationale	Critical Comme nt? Y/N
	can be made only by authorized personnel (§ 211.68(b)). FDA recommends that you restrict the ability to alter specifications, process parameters, or manufacturing or testing methods by technical means where possible	can be made only by authorized personnel (§ 211.68(b)). FDA recommends that you restrict the ability to alter specifications, process parameters, or manufacturing or testing methods by technical means where possible. Examples include MPCRs, laboratory data, EBRs, inventory records, PM or calibration data.	narrowly on batch related data. PDA recommends inclusion of other examples to ensure clarity on scope of data included.	
Q4 Lines 185-187	FDA recommends maintaining a list of authorized individuals and their access privileges for each CGMP computer system in use.	FDA recommends maintaining a list of authorized individuals and their access privileges for each CGMP computer system in use. FDA recommends maintaining and reviewing the list of authorized individuals and their access privileges for each CGMP computer system in use including the ability to track changes to access. This review frequency should reflect the risk of the access privileges (e.g., more frequently for privileged or administrative access).	The original text could be interpreted to mean that a list must be maintained manually. Access changes should be tracked. The list should be maintained and reviewed.	Yes

Line No.	Current Text	Proposed Change	Rationale	Critical Comme nt? Y/N
Q7 Lines 226-230	FDA recommends that audit trails that capture changes to critical data be reviewed with each record and before final approval of the record.	FDA recommends that audit trails that capture changes to critical data be reviewed with each record and before final approval of the record.  FDA recommends applying audit trails or other physical, logical, or procedural security measures based on predicate rule requirements and on criticality of the data.  The criticality of the data should be determined based on the potential of the data to effect product quality and safety and record integrity and the extent and types of security measures should be based on a justified and documented risk assessment. Audit trails that capture changes to critical data should be reviewed with each record and before final approval of the record.	The proposed text aligns with the risk-based approach documented in the 2003 FDA Scope and Application guidance, which provides criteria for identifying which data is critical and reinforces that the predicate rules should be relied upon to define the scope of records that must be audit trailed.	Yes
Q7 Lines	FDA recommends routine	FDA recommends routine	The proposed change is intended	Yes
232-233	scheduled audit trail review based	scheduled audit trail review based	to clarify when routine audit trail	
	on the complexity of the system	on the complexity of the system	review should occur in addition to	

Line No.	Current Text	Proposed Change	Rationale	Critical Comme nt? Y/N
	and its intended use.	and its intended use. monitoring of audit trails, where frequency is based on the intended use and potential of the data to effect product quality, safety and data integrity.	the audit trail review of each critical record prior to approval and to remove "complexity of the system" as a consideration for audit trail review.	
Q7 Line 226	Current Text: FDA recommends that audit trails that capture changes to critical data be reviewed with each record and before final approval of the record.	Proposed Change: Please add a definition of the term "critical data" Proposed definition below.  Critical Data – all authentic and original data and metadata needed to represent a given action or decision, which fulfill the requirements to satisfy policies, procedures, applicable laws and regulations.	Rationale:  It is important to align the understanding of the term "critical data" in the guidance.	Yes
Q9 Line 254	True copies of dynamic electronic records may be made and maintained in the format	True <b>electronic</b> copies of dynamic electronic records may be made and maintained in the format	Clarification that the true copies of dynamic electronic records cannot be paper copies.  It is recommended that this document (question 1.a.) includes a definition for "true copy". There isn't global alignment on understanding of this term. 21 CFR	Yes

Line No.	Current Text	Proposed Change	Rationale	Critical Comme nt? Y/N
			211.180 mentions only "photocopies, microfilm, microfiche, or other accurate reproductions". This definition does not seem adequate in the context of modern systems anymore. <b>True Copy:</b> An exact verified copy of an original record. Data may be static (e.g. a 'fixed' record such as paper or pdf) or dynamic (e.g. an electronic record which the user / reviewer can interact with).	
Q12 Line 305	When does electronic data become a CGMP record? When generated to satisfy a CGMP requirement, all data become a CGMP record.	When generated to satisfy a CGMP requirement, all data become a CGMP record. Electronic data generated to satisfy or support a CGMP requirement becomes a CGMP record at the time of its creation. This is what is meant by "contemporaneous recording of data".	Adds a clear concise answer to the question  Note: Paper copies of electronic data or analyses should not be considered original records and not subject to the same retention policies.	Yes
Q12 Lines 316-319	Similarly, it is not acceptable to store data electronically in temporary memory, in a manner	Similarly, it is not acceptable to store data <del>electronically in</del> <del>temporary memory,</del> in a manner	This requirement might be misleading. It uses terminology from computer science, like	Yes

Line No.	Current Text	Proposed Change	Rationale	Critical Comme nt? Y/N
	that allows for manipulation, before creating a permanent record. Electronic data that are automatically saved into temporary memory do not meet CGMP documentation or retention requirements.	that allows for manipulation, before creating a permanent record. Electronic data that are automatically saved into temporary memory do not meet CGMP documentation or retention requirements. The implementation of input checks (e.g., drop-down lists, restricted numeric ranges, or date ranges) which generally improve the quality of the data are allowed.	"temporary memory" which might be translated by somebody into RAM and HDD But the intention of the requirement is about modification of data. So this requirement asks for personalized user accounts for all systems that allow data modification after acquisition.  The additional text at the end of the statement provides clarification that input checks routinely implemented in manufacturing execution systems (MES) are allowed even though values in this case may be saved in temporary memory in order to perform the check before permanently saving the record. The original text may lead to the interpretation that input checks are a way to manipulate data.	

Line No.	Current Text	Proposed Change	Rationale	Critical Comme nt? Y/N
Q15 Lines 381-383	FDA invites individuals to report suspected data integrity issues that may affect the safety, identity, strength, quality, or purity of drug products at <a href="mailto:DrugInfo@fda.hhs.gov">DrugInfo@fda.hhs.gov</a> . "CGMP data integrity" should be included in the subject line of the email.	FDA invites individuals to report suspected data integrity issues that may affect the safety, identity, strength, quality, or purity of drug products at <a href="mailto:DrugInfo@fda.hhs.gov">DrugInfo@fda.hhs.gov</a> . "CGMP data integrity" should be included in the subject line of the email. This reporting method designed for individuals is not intended to supersede Field Alert Reports (FAR) or Biological Product Deviation Reports (eBPDR).	For clarity, it should be noted that this invitation for reporting of suspected DI issues by individuals is not intended to replace the formal methods used by firms (FAR and eBPDR).	
Q16	16. Should personnel be trained	16. Should personnel be trained	Individuals should be trained on	Yes
Lines	in detecting data integrity issues	in preventing and detecting data	both, <u>preventing</u> and detecting	
391-394	as part of a routine CGMP	integrity issues as part of a	data integrity issues. It is	
	training program?	routine CGMP training	important to be capable of	
	Yes. Training personnel to detect	program?	detecting issues, but it is just as	
	data integrity issues is consistent	Yes. Training personnel to prevent	important to be able to prevent	
	with the personnel requirements	and detect data integrity issues is	them, and not rely on every issue to be detected.	
		consistent with the personnel requirements	to be detected.	
Q18 Line	FDA encourages you to	FDA encourages you to	The current proposed wording is	Yes
406	demonstrate that you have	demonstrate that you have	overly prescriptive and may not be	103
100	effectively remedied your	effectively remedied <del>your</del>	appropriate for all variations of	
	problems by: hiring a third party	problems by: hiring a third party	data integrity issues. Data	
	auditor, determining the scope of	auditor, determining the scope of	Integrity issues may require	

Line No.	Current Text	Proposed Change	Rationale	Critical Comme nt? Y/N
	the problem implementing a corrective action plan (globally), and removing at all levels individuals responsible for problems from CGMP positions.	the problem implementing a corrective action plan (globally), and removing at all levels individuals responsible for problems from CGMP positions the data integrity issue by determining the root cause, assessing impact to patient safety and product quality and implementing appropriate corrective and preventative actions.	different approaches to address the root cause. For example, placing more control over operations may not address the mindset or behavioral issues. The need to hire a third party auditor should be determined by the firm on a case by case basis.	