From: Holonich, Joseph
Sent: Wednesday, September 11, 2013 10:43 AM
To: Troy, Pat
Cc: Carte, Norbert; Zhao, Jack; Nguyen, Khoi
Subject: Clarifications to RAIs

Pat,

Per our discussion this morning, below are clarifications on partitioning and maintainability.

Also, here are the ADAMS numbers for the following:

ALS Audit Plan: ML12275A005
ALS Audit Report Package (letter and reports): ML12355A132
ALS SE Package (letter and reports): ML13210A290.

You should be able to get to publically available information using the above numbers.

I will be placing this email into ADAMS.

Thanks,

Joe

Partitioning:
Partitioning a complex design into smaller modules can improve reliability. The FPGA itself is generally complex devices where the design should be partitioned into smaller, simpler components, each of which should have well-defined interfaces and interactions (structural property). Some of those portioned components contribute to the implementation of the functions, the others don't. The strategy and design principles should exist to verify that if each portion correctly performs its own function(s), and then, when put together, the whole system would have the correct functional & timing, and other properties.

Maintainability:
In the project plan, maintainability should be addressed to make sure that some requirements or constraints are placed on how the design is developed, implemented, and documented so that goals for long-term support, ease of modification, and design portability can be achieved. Project plans might specify what portions or levels of the design will be kept circuit-independent so that those portions can be re-used, even if a different blank circuit must be used for future replacements or upgrades. Requirements or constraints related to use of third-party IP cores or pre-developed blocks (if used) that are not circuit-independent may be specified. Requirements for documentation to support future modifications or replacements should be specified.