

Gerald Eastman

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# Fax

To: Ali Bahrami, Directorate Manager,  
ANM-100

From: Gerald L. Eastman

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Fax: 425-227-1100

Date: December 14, 2009

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Phone: 425-227-2170

Pages: 19 (plus cover page)

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Re:

CC:

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Urgent     For Review     Please Comment     Please Reply     Please Recycle

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•Comments: Please see the attached letter.

## Urgent:

Please see item #7 and related comments in this letter as soon as possible. The maiden flight of the 787 scheduled for Tuesday, 12/15/09 may be affected, depending on your decision on the criticality of this discrepancy to the safety of the first flight, if it were to exist on that planes flap supports/carriages (which is likely to be the case).

Gerald Eastman

  
gerryeastman2477@msn.com

December 14th, 2009

Ali Bahrami  
Directorate Manager, ANM-100  
Transport Airplane Directorate  
Aircraft Certification Service  
Federal Aviation Administration (FAA)  
1601 Lind Ave. SW  
Renton, WA 98055-4056

Dear Mr. Bahrami,

This letter is a report under my responsibilities per 14CFR13.1.(a). Please give it your urgent attention, and ensure it is investigated it fully.

I am reporting the fraud I witnessed in the Quality Assurance Department of the following company:

Accra Manufacturing  
17703 15th Ave S.E.  
Bothell, WA 98012

I was an employee of Accra from 9/5/07 until 3/26/08. I would have sent this report to you sooner, however, I could not begin to take efforts to report it until after 2/26/09, as I had unfounded charges lodged against me by a previous employer as a result of my collecting information for my whistleblowing to appropriate agencies. I did not believe that this report would be given appropriate credence and would be properly investigated while I was under the cloud of those unfounded charges. Indeed, Accra terminated me on 3/26/08 because of those unfounded charges by a prior employer, calling them "a conflict of interest with a major customer." Now that the charges have been dismissed with prejudice, I can do what I always planned to do in submitting this report for investigation.

I apologize for the delay past 2/26/09 in reporting this too you, however. It is now some several months past when I could have/should have submitted it. I want to ensure to do so now both because of this lateness due to other personal matters, and because one item (item #7, below) could conceivably affect the safety of the recently scheduled 787 first flight on Tuesday, 12/15/09, and I don't want my failure to report that item to your office for investigation/remediation to result in a mishap that would endanger the aircraft/crew and also scar my conscience for not reporting it before

the flight after having been aware of it for some time.

This report is not in any way related to my termination by Accra. I have proven to the FAA before that I will report fraud to it even when I am still employed by the company I am reporting, as I did in my reports to the FAA in January and May of 2002 when I was an inspector at The Boeing Company.

Please put the best investigative team that you can together as soon as possible to investigate the following to ensure that Accra's quality system is restored to compliance at the earliest possible date:

When I was an inspector at Accra, I always did my job with the utmost integrity, except for the times when I was specifically directed by my management to do otherwise. I always made sure that I was directed to do so by management before stamping an inspection off as acceptable that was never done, ignoring defective parts, etc.

I did as much as I could in countering this fraud by the management of the company, while still keeping my job, as I knew, if I left the company, a replacement employee would not likely try as much as I did to do their critical job of inspection to the maximum integrity possible despite Accra management direction to skip required inspections and ignore defective parts. In other words, I knew quality and safety of the parts Accra delivered would be further compromised by this fraud if I was no longer one of the inspectors there.

Probably the most significant way in which I disobeyed my management's direction to ignore quality system requirements (and therefore FAA mandated requirements) was my habit of disobeying my management's direction to only final inspect a few of the parts in a particular lot of parts, and, as surreptitiously as possible, making sure I looked at every part in the lot before buying the final inspection off.

Of course, this was not my first experience with such quality assurance fraud. Unfortunately, in my experience, some quality assurance managers place efficiency and cost concerns over the importance of their own duties, and they depend on the difficulty in proving after the fact whether an inspection was actually done or not to commit and/or coerce other personnel into committing the fraud of "rollerstamping" or "hot-stamping" inspections off on the production paperwork on the companies' behalf.

It is, unfortunately, easier to save money and improve efficiency by fraud without getting caught by omitting and not doing the required inspections and letting defective products deliver to customers, than saving money by omitting physical parts of the product to save money, which could obviously be much more easily noticed.

This fraud at Accra was at the behest of the two managers of the Quality Assurance Department:

██████████ Quality Assurance Manager at Accra, and

██████████, Quality Assurance Supervisor.

Most of the defects and inspections I was directed to overlook by [REDACTED] my immediate manager.

[REDACTED] reported to [REDACTED] who had responsibility for management of the whole QA department.

[REDACTED] I believe, reported directly to the President of the company.

It must be emphasized that these were not by and large accidental noncompliances—they were intentional fraud by management of the company.

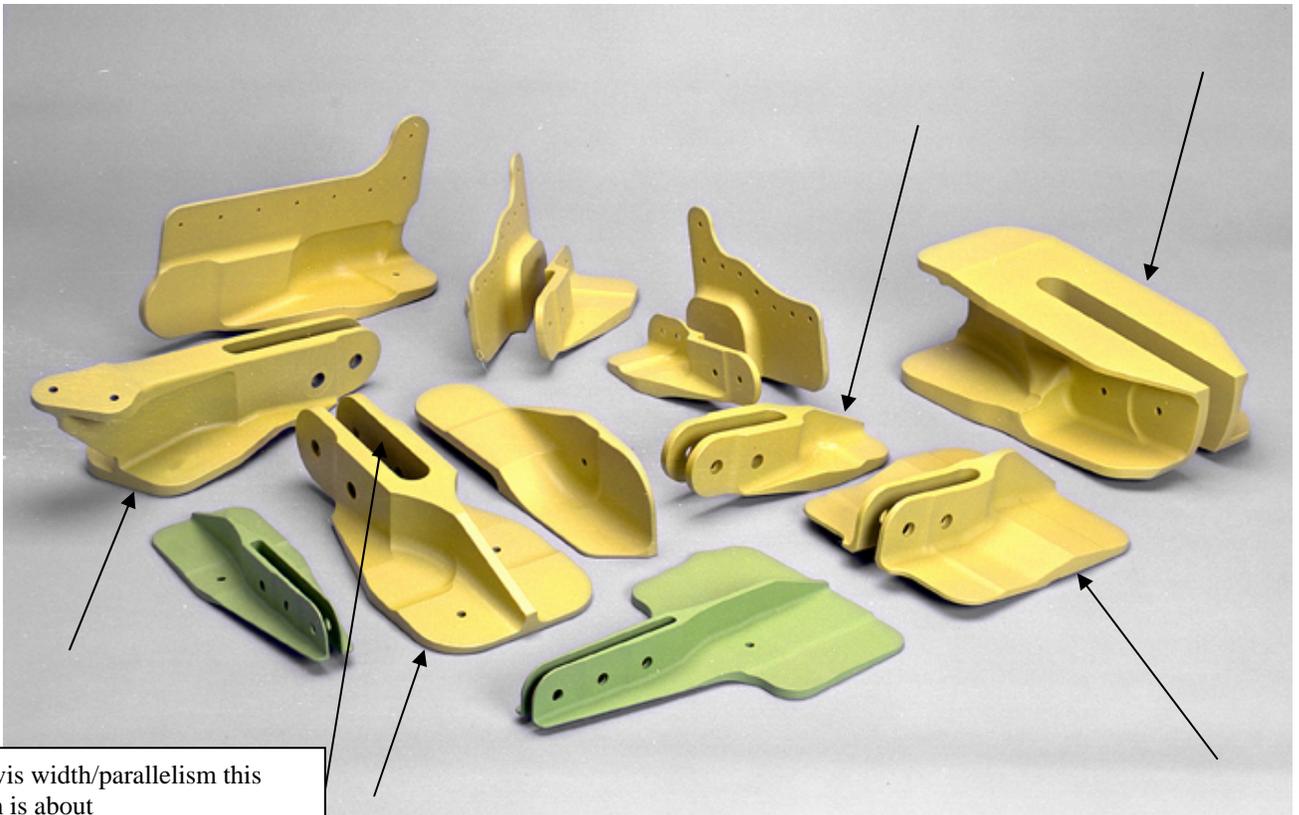
Please formulate your investigation/enforcement actions/cooperation with law enforcement based upon that fact. An ACSEP-like audit instead of a true investigation this fraud will not result in the required level of compliance at the company, as the root cause of the fraud (QA management, and other management at the company aware of it or directing it) would not be addressed by such an audit in place of an investigation of the fraud itself and its related QA system noncompliances.

I will attest to any of the facts documented in this report in a court of law, so you already have one witness you can rely on in this matter.

Please investigate the following items, as well as any other areas you deem appropriate due to such an intentionally compromised quality system:

1. Although all of these items (and related noncompliances found while investigating them) are important to address, I will put this one first, as it is especially egregious:

Accra has a contract to manufacture many of the “paddle fittings” for Boeing. These are the fittings that splice the wings to the side of body chords. These fittings were manufactured by Accra for the 737, 747, 767, and 777, and perhaps other model(s).



Above is a picture of the noted fittings from the Accra website. The type of fittings at issue are the yellow (fuel tank primered) integral wing/fuel tank fittings with clevises, including and similar to the ones the arrows point to.

The first time I inspected these fittings, I came across defects I was directed to overlook by my supervisor.

It was obvious that there had been nonconformances with these paddle fittings before, as most jobs had an inspection that had been added (apparently in the 2002 or before time frame) to inspect the “clevis width”—the “slot” of the paddle fittings that attached to the vertical web of the wing stringers. These “clevises” usually had two or three just under final size pilot holes in them.

Anyway, the first time I inspected a lot of parts per this inspection, I found many parts in the lot out of tolerance. To my memory, this inspection was to check per a drawing requirement that the two sides of the clevis part of the fitting be parallel to within a certain dimension on the inside of the clevis over the length of the parallel surfaces, presumably to ensure fit-up/easy shimming/minimum preload of the clevis at assembly. I didn’t document the specified required dimension and what I measured, but I believe that parts I measured per this inspection were .010” or more out of tolerance, with the clevis lugs bowed out.

Like I did with all discrepancies, I went to my supervisor [REDACTED] and asked him how he wanted me to write the nonconformance up.

He told me to ignore the discrepancy, and buy off the inspection as acceptable, and move the parts on to part mark and shipping that way (discrepant). He said not to inspect that dimension in the future, as Boeing had not sent back any of the many such nonconforming fittings Accra had shipped to them in the past.

I reluctantly did as I was directed to do from that point on, and so did my partner in the “Receiving/Final” inspection area much of the time I was at Accra, [REDACTED]

The inspection he directed me to rollerstamp was obviously an inspection added as a result of C/A for the discrepancy being caught and addressed in the distant past. I do not know the particulars of why the inspection was there beyond that.

Apparently, after the paddle/splice fittings are machined, the clevis width bows out of tolerance due to post machining processes—most likely shot peening, in this case. That is why, I believe, the inspections for the clevis width being out of tolerance were scheduled on the production paperwork to be after the parts were received from penetrant inspect/shot peen/anodizing/finishing processors they were sent out to after post machining inspection.

The inspection I was directed to ignore was at the point of production just after the fittings came back from shot peen/anodizing/finishing processes at the processing vendor. I believe that, if I and my coworker in the area had not been directed to ignore those inspections and we had been allowed to document the discrepancies as required, that the C/A would have been to send the parts back out to the vendor so they could be “peen formed” back into tolerance, or that they be marked to alert mechanics at the buyer (Boeing) that extra shimming would be required due to the discrepancy, or that they would be scrapped.

Of course, that is unknown, as the discrepant fittings were shipped to Boeing with the discrepancies undocumented/unaddressed per direction of my management.

Much later, I wrote this note to myself about a conversation I overheard in the QA booth (the CMM/dimensional inspection room) on the subject that gives you more detail as to the scope and intentional shipping of these discrepant fittings used in critical structural applications:

“On 1/8/08, just before 7:20 AM, I was in the QA booth and overheard [REDACTED] and [REDACTED] talking. [REDACTED] was talking about how they had been sending “them” (defective wing splice (paddle) fittings to Boeing) to Boeing since 2002 to see if they would “send them back,” but they hadn’t rejected them. [REDACTED] told [REDACTED] “thanks for your input, [REDACTED]”, laughingly. [REDACTED] must have brought up that the fittings were defective and that something should be done about it (clevis width out of tolerance.)”

[REDACTED] was the main CMM inspector at Accra. His and [REDACTED] desks faced each other in one corner of the “QA booth.”

Of course, this is serious fraud on many levels. It was management directed, it ignored discrepancies that had previously been deemed so serious that special inspections had been added to the plans to catch them, it involved critical structural parts of the airplane, it defrauded

their customer, etc.

I don't know if they are still committing the same fraud with these parts, but they were doing so up until 3/26/08.

Of course, on 3/26/08, when they found out they had a whistleblower on the QA staff—a whistleblower they knew had turned in much larger companies' fraud into authorities—it likely scared the hell out of them (██████, ██████ and ██████ HR Manager), and they may have taken steps at that point to address these discrepancies to cover up the fraud, or they may not have. I suspect, even if they did try to cover it up (and other fraud noted in this report) then, that, with the time that has passed, they likely are back to the same or even worse QA fraud, as they may quite likely assume I will never report the fraud I witnessed because of that time passage.

Of course, the parts and paperwork will not lie. Have your investigators check stock on hand for this discrepancy (on dock, back from processor, in stores, and in the part mark/shipping area). If parts are not discrepant, check their nonconformance system and production paperwork scanned in their archives to see when they began to address and eliminate these discrepancies, rather than just shipping the defective parts to Boeing.

Of course, again, document your findings if this fraud is still ongoing at Accra.

Even if they addressed it after my termination, they need to answer to you for the fraud they intentionally committed and the discrepant parts they intentionally shipped to their customer before those cover up activities.

Please decide whether or not to check Boeing's stores of these parts.

I believe your investigators may also want to see how this discrepancy does or does not affect part fit-up at Boeing. Obviously, if the mechanic does not notice the discrepancy and uses a flat shim instead of the tapered shim required to adjust for the discrepancy, then these highly stressed in service part's clevises will be preloaded by the attachment bolts upon final installation.

2. This instance of me being directed to overlook defects and ship discrepant parts I noted on the same date as the note in the above item:

“Also on 1/8/08, ██████ told me to run through 117 737-3931-7 (run 5) parts with two ground studs each that were bonded only on one side under each ground stud, whereas the dwg required both sides to be cleaned to bare metal and alodined (CM1).”

These are obviously designated (critical) electrical bonds. Please check stock in process and stores, as well as at Boeing if necessary to capture and rework these critical electrical bonds to drawing/specification requirements.

I do not know the use of the parts or their electrical bonds on the airplane. I notified ██████ ██████ of the discrepancy as I always did, and asked him if I should send them back to shop for rework. He told me to send them out as discrepant, instead.

Please ensure other electrical bonds are done per specification/drawing requirements as well. For instance, the 787 flap support bonding jumpers are fillet sealed when we get them for final inspection, so I have no idea if those were electrically bonded as required.

3. Fitting in with the above item, [REDACTED] HR manager, did an audit and wrote up the fact that inspectors weren't certified as required to inspect electrical bonds. However, months went by, and apparently due to us being too busy to be certified, the finding was ignored. I believe [REDACTED] brought by the electrical bonding procedure for me and my partner in my area to study for testing, but we never had time to read it or be tested while I was there, and Accra management ignored this because of manpower concerns. Meanwhile, parts like in item 2 above were being shipped without being inspected by certified inspectors.

Please check to ensure that inspectors, as well as the mechanics who make such electrical bonds, are certified as required.

Additionally, test their knowledge of the specs, including probe placement, correct bonding methods and locations, ability to read ohmmeter values and compare them to requirements, etc.

4. This is another critical inspection that [REDACTED] told me and the other inspector in my area to not do, but just to stamp it off as done instead:

[REDACTED] told us to not perform required inspection of bore diameter of the horizontal/vertical stabilizer fittings that Accra manufactured—specifically, not to inspect the bore diameter of the fitting if a bushing was later installed into that bore.



Above is a picture from the Accra website ( [www.accramfg.com](http://www.accramfg.com) ) showing some of the vertical/horizontal/wing trailing edge fittings this item concerns (because Accra was an assembly manufacturer, I don't know (and didn't need to know) exactly where on the airplane each of these fittings were installed).

This was not only more fraud, but it was unwise for more than that fact. Accra had two people that bored these fittings and bored the i.d. of the bushings after they were installed. One had been there for years and did good work, albeit I found their work to be discrepant as well on occasion, but the other guy worked two jobs and his work was frequently discrepant, with undersize/oversize bores, concentricity of bores out of tolerance, etc.

These were holes that fit almost anyone's definition of a "close tolerance" hole, with tolerances in the tenths of thousandths.

Being directed to ignore the mandatory inspections of these bores prior to bushing installations was fraud of the highest order. These were the bushings/fittings on which the control surfaces of the airplane pivoted, and the consequences of a loose/galled bushing or a fitting cracking because the bore in the fitting was undersize/scratched cannot be over-emphasized.

Please inspect all fittings in process that do not have bushings installed into their bores yet to find out what kind of discrepancies we were told to not inspect for as required.

Please ensure appropriate corrective action is taken, including capturing of intentionally escaped discrepancies.

To one of his few small credits, [REDACTED] did tell us to inspect the bores in a few specific fittings—"173W" fittings which had been bored for bushing installation before being sent out for processing. We found that the etching for penetrant inspection had enlarged some bores beyond tolerances. He did let us document those discrepancies, as he rightly thought that boring the fittings to final size before such etching for efficiency purposes was the wrong thing to do, and he wanted the data to show that it was a bad idea.

As part of your investigation of this item, please check to see if fittings are still being bored final size and being oversized during etching at the vendor for penetrant inspection, and document those additional findings accordingly.

Of course, [REDACTED], directing us to inspect just those few fittings does not excuse him and Accra for directing us not to do the mandatory inspections on all of the other fitting's bores, and therefore letting discrepancies in those bores deliver to customers undetected because of this fraud.

I found discrepancies frequently in the few of these bores we were allowed to inspect as required, and in the bores in the bushings installed into these holes after bushing installation. You won't find documentation of these defects found for the most part, as we just returned them to the boring machine area with discrepancies noted on tape for undocumented rework.

5. This is an item that I wanted to check into while at Accra, however I never had time to do so. Please check into it as part of your investigation.

This may not be a discrepancy—only your investigation will tell.

This has to do with “pre-bore” bushings Accra made out of the drawing called out bushings for the fittings in item 4 above.

Accra had special jobs to make such bushings, which were usually suffixed with a –“pb\*\*” and issued in place of the drawing required bushings to jobs that installed the bushings into the fittings.

These were made to ease bushing installation in the bores and/or make final line reaming of the inside of the installed bushings easier and less time consuming.

However, what I wanted to check into was whether such pre-boring of bushings was specifically authorized in the spec for bushing installation. I do not remember the spec number off the top of my head, but it may be BAC5435 (the fitting assembly drawings will call it out).

The concern? Like any custom designed made freeze plug made for a repair, the engineering repair disposition always states to maintain a minimum wall thickness on the freeze plug, which is similar to a bushing. This is so that the required interference fit between the freeze plug and the structure can be maintained.

Does such preboring eliminate some of the required interference between the bushing and the hole in the fitting?

Please investigate, and ensure this practice is specifically authorized by the spec or by engineering approval in each instance it is done.

Please document findings and capture discrepant product as warranted.

6. I don't have the whole part number for this part, but I believe it started with “173W”. (I didn't document the data on these discrepancies I should have/could have because of the trouble I got in for doing so at my prior employer during my whistleblowing there. So I purposely didn't bring home anything from Accra other than a few Post-Its with a few part numbers/run numbers of discrepant parts that I have transcribed into this report in relevant sections).

It is the part at the very top aft end of the vertical stabilizer on the 777, I believe.

I was inspecting the processing of this part, and noticed that the processor had finished the entire part except required masked electrical bonding areas (for static dischargers for the most part, I assume) with the same primer, whereas the drawing required two separate primers—as I remember, one on the flange of the part that interfaced with the adjacent part, and another primer on the aerodynamic surface of the part.

As I vaguely remember, the two primers might have been BMS10-83 type II and BMS10-83 type III.

I looked up the finishes on the substitution drawing for the 777 and the spec, and found no authorization to use the one primer in place of the other as was done.

I brought this to the attention of [REDACTED], who told me that the processor had told them that the one primer could be substituted for both. When I tried to explain I had checked the substitute drawing and spec, he abruptly cut me off, restated the vendor said it was OK, and so I shipped the part as it was, as he had directed me to do for many other discrepant parts.

Please check into this discrepancy, and if such documentation I wasn't provided approving the substitution does not exist, please document the finding and capture escaped discrepant product.

I believe the different finishes may have been required for the obvious electrical bonding requirements for this part.

7. This is obviously a critical problem.

Accra makes the flap supports/carraiges for the 787. These are the largest assemblies they make, and they are made in several processing steps.

In one of those steps, the main part of the flap support into which the drive arm is later installed has some protrusions milled off of it after the shop assembles it. Then it is sent out to one of a few processors that did the work, which shot peened the milled areas and finished them.

However, most of the time (if not all of the times) the processor would ship the assemblies back, shot from shot peening operations was lodged inside the flap support assembly and in the bushing lube pathways.

While management did make a half hearted attempt to address this problem, on occasion sending them back to the processor for removal of the shot, and on occasion having us "receiving/final inspection" inspectors (me and [REDACTED]) try to find it upon return from the processor and remove it ourselves, I know that flap supports contaminated with shot were shipped to Boeing for installation on 787s.

On one occasion, on a severely contaminated assembly, [REDACTED] QA Manager, directed me to buy it off as it was contaminated with the FOD (shot), and it was shipped to Boeing in that condition. I wrote down the following info on that unit:

P/N 4004-1 (prefix 138Z, I believe—I didn't write it down)

Run 7

Date 12/17/07, time directed buy off as is: 14:27.

Please inspect these flap supports and the drive arms (which similarly were sent out for processing after assembly and milling operations, and received contaminated from suppliers who

shotpeened them), and document your findings, ensuring all shot contamination within these assemblies and their bushing/bearing lube paths are removed before any enter service.

Just one piece of shot getting into the mechanisms of these flap supports could result in galling that could disable it.

This shot was not only on the surface of the flap support, but also in the lube passages through which the bushing/bearing grease was injected.

This shot is relatively small, and appears to be small bubbles mostly around fastener/fay sealant, mostly in the interior bays of the flap supports and the lube passages.

The sealant around fastener heads/collars/nutplates and fay seals was not faired for the most part, so the shot would wedge itself into the re-entrants/donut shaped seals around such fasteners and along such fay seals. The other inspector and I used small magnets taped to Q-tips or more lengthily “probes” in order to capture the shot and remove it from the assembly as best we could. Of course, no matter how careful we were, that doesn’t mean by far we found and removed all of the shot. I wouldn’t certify that any of the supports even I inspected were shot free, as there were too many places for this shot to “hide,” and manufacturing rotated these assemblies after we tried to find and remove the shot, so “hidden” shot we didn’t find could easily be anywhere in the assemblies after we inspected them, including lube paths (maybe the most critical concern, as they could then be injected into the main drive arm bore joint (or other contaminated lube paths that lead to bushing/bearings in the flap support or drive arm) and gall and stop the flap support at any point of travel in flight).



assemblies. In that regard, focusing inspection activities on those airplanes closest to flight would be best, I believe. How you can address the shot that is likely mixed with grease in the lube paths of flap support bushings/bearings will be critical, I believe. Evidence of shot contamination on the noted webs and bays as noted should be considered as evidence grease paths have been compromised as well, I believe.

In this regard, I'm glad I got this report to you before first flight.

8. Please investigate the accessibility/knowledge of Accra's quality manual among both its inspection personnel, and its mechanics and applicable managers.

I worked there for six months, and never read any of the manual. I believe it was online on Accra's intranet. As noted above, I "almost" got the chance to be trained in the electrical bonding part of the manual.

As I witnessed, Accra does not operate to its quality procedures anyway, so perhaps management felt it "non-value added" that we know what those QA procedures were.

I had many years of Boeing experience in inspection, so I used my knowledge of those procedures in my job, except when I was directed to violate even those procedures by Accra's management. As most Accra parts were Boeing parts, that was the right thing to do, in my opinion, considering the complete lack of training of inspectors to any part of the (presumably existing—I never saw it in over six months there except as noted above in the part handed out to us that we never had time to read or be tested per for electrical bonding certification) FAA required Accra QA manual before they were allowed to inspect.

In view of this, I believe a full audit to the FAA-approved quality procedures is needed at Accra as part of your investigation.

9. Another of [REDACTED] direction to ignore minimum inspection requirements was this biggie:

I knew that, having been an inspector at Boeing for some years, that even statistical sampling of final inspections of assemblies was not allowed. At the time I left Boeing, final inspections of jobs was supposed to be 100%--done every time.

Not so at Accra. Accra made parts and assemblies by lots—sometimes in large numbers like in item number two above. [REDACTED] told us that we only needed to actually inspect one or two assemblies from each lot, which flies in the face of Boeing's minimum requirements and FAA approved procedures—probably including Accra's.

The vast majority of the parts were for Boeing.

No statistical methodology was given—we could cursorily inspect or not inspect whichever part or couple parts we wished to out of the lot.

I knew this was just more fraud I was told to engage in, so I always made a point of looking at every assembly while the boss wasn't looking (I hoped). I couldn't perform the detailed inspection of each assembly I knew was required under the time constraints of the job ("overworked" was putting it lightly, I frequently worked at least 50 hours a week, plus many weekends), and because I would be disciplined if caught even doing the minimal inspection of each assembly I did. My partner, [REDACTED] (who had minimal if any inspection experience before being hired and who I helped train (unofficially—I would answer his questions about inspection criteria)) wasn't as brave as I in this regard.

This kind of fraud by a company is even more surprising in that Accra built many safety critical assemblies, such as various primary and secondary flight control cable quadrant assemblies.

As a consequence of this practice at Accra, only a small fraction of parts/assemblies are actually inspected before being bought off and shipped to customers.

Of course, they will likely deny this is their practice, but I can testify otherwise, and some people don't lie well, especially to federal Aviation Safety Inspectors/the FBI as applicable. I have demonstrated that I tell the truth in any situation, whereas Accra personnel will be motivated to lie during your investigation for obvious reasons.

Please issue a finding for Accra not inspecting 100% of parts as required, and capture any defects allowed to escape due to this fraud.

I have not read Accra's quality manual, but I doubt it abets this unscientific final inspection sampling method, or even a statistical final inspection sampling method.

When I was there, we were undermanned for even the illegal non-100% inspection fraud. Please ensure your team does not allow production to go forward until the company has enough inspectors to do the required number and detail of inspections within the current shift(s).

That should hopefully forestall for a while reinstitution of this fraud anytime soon because of lack of inspectors.

Do not allow shifting of inspectors from dimensional inspections to final/processing inspections, as that would just ensure reinstitution of the fraud when your team leaves and inspectors go back to dimensional inspection to catch up.

Periodic unannounced FAA inspector visits I believe would be required to keep Accra from relapsing into taking these shortcuts by skipping inspection of parts/assemblies, as well as the other fraud documented in this report, once you team gets Accra into compliance with its quality system and any other applicable FAA requirements you find they are violating during your team's investigation.

10. A similar item I am not as knowledgeable about, but it was an item told to me by [REDACTED] (I forgot his last name, unfortunately), a dimensional inspector in the QA CMM room, where the dimensional inspections are sometimes done after the parts are machined.

Sometimes we (me and [REDACTED], the other receiving/processing/final inspector in our area next to the part marking area) would do a few dimensional inspections on first article paperwork, but otherwise the dimensional inspections of machined parts were done by other inspectors (“dimensional inspectors”) in the CMM room, “QA booth.”

[REDACTED] said that they weren’t doing all of the required inspections, but they were just doing some inspections in “problem areas.”

Of course, [REDACTED] desk was in that room, and he tended to kept tight control of his inspectors, often in ensuring efficiency over quality system requirements, and that required inspections were not done, as demonstrated in several items in this report.

I have no problem believing that [REDACTED] similarly told [REDACTED] and the other dimensional inspectors to ignore required inspections just as he told me and my coworker in my work area to do.

I did see an SPC chart on the wall in the CMM room over the inspection table against the wall, and what appeared to be “mini SPC inspection matrixes” on the production paperwork next to the buyoffs of the dimensional inspectors (which I believe most often indicated no sampling, 100% inspection), but that doesn’t mean by far that they complied in any way with any such approved SPC program for the noted reasons.

Please interview [REDACTED] about this and get the details, but interview other inspectors as well privately so as to protect him from retaliation.

I know he was unhappy in his job, I believe because he didn’t agree with [REDACTED] direction to ignore required inspections, as well.

While interviewing him, especially, as well as when interviewing other inspectors, please find out what other quality system requirements were being ignored/rollerstamped in dimensional inspection.

Getting true answers will be tricky, as people avoid telling the truth if they think their job is on the line if they do. That is why whistleblowers like me are so rare, I believe.

11. Please check into the lack of required safety device inspections and the required safety device inspections callouts on production paperwork.

This involves (but is by no means limited to) the three safety devices that secure the nut on the flap support drive shaft center axle (“Main drive arm bore joint” as noted in the picture above). There was no safety device inspection for these safety devices on the plan, so shop (on at least some of these 787 flap supports) came and got my partner to do “courtesy inspections” of these safety devices before putting the cover over them which hid them to later inspection. I believe the inspection was then handwritten on the plan.

There are several problems with this:

The inspections should be printed on the plans per Manufacturing Engineering input, not added by shop or inspection. There is too much chance such a “written each time” inspection operation buyoff would be missed.

Inspections—especially inspections for items as critical as safety devices—should be present every time on the printed paperwork every time there is a safety device installed to be inspected.

Please audit the plans and parts to ensure the safety device and other inspections required are present, and issue findings as necessary.

This is by no means an isolated incident. As I remember, we were to alter the plans with handwrites ourselves and email the planner to make the changes on the next run for any changes we made to the plan (not including the noted missing safety device inspections). I’m not sure why the planner wasn’t available to change the planning himself.

I don’t have the part number, but there was one part with an electrical actuator that I believe drove a shaft that had a safety device to secure the rod end of the actuator (part of the flight control system, I believe). There was no inspection on the plan for the safety device in that instance, though I always inspected the visible safety devices on the parts I inspected, no matter how deficient the planning was. In the instance of the noted part, it was unclear as to whether Accra mechanics or the actuator vendor installed the safety, I believe, but it seems that Accra mechanics would have had to adjust the rod end on assembly.

Of course, there may be a procedure for planning at Accra that is as poorly followed as the quality assurance manual.

I’m sure your team is well aware of how to bring Accra planning back into some modicum of compliance so the required inspections are done, as well as documented on all of the applicable plans.

In the case of the safety devices under the cover on the side of the 787 flap support(s), I believe there should also be an “OK to close” inspection before the cover is put on, not only for Accra quality system requirements, but also for the CFR that requires inspections to be performed at points where accurate determinations of conformity can be made, and to preclude FOD. Please issue a finding on this as necessary as well.

12. Please check into the lack of torque witness inspections on plans. As we were never allowed the time to read the Accra quality manual, I’m not sure what requirements are within it, but I do know Boeing requirements well. It makes no sense to me why Boeing engineering designated/critical torques would be witnessed at Boeing, but, if the assembly was built at a supplier, they wouldn’t be witnessed by inspection.

Accra mechanics did put blue putty on bolts supposedly to ensure that assemblies weren’t tampered with at Boeing, but it was not a designation that any inspection of the torque of those

bolts occurred.

Please audit drawings for Accra built parts and ensure torque witness inspections are on the plans for any torque values called out by engineering on the drawings (designated torques). There were so many bolts and so many safety critical parts built at Accra that there should be many of them that are designated torques requiring inspection witness.

That a supplier like Accra has lesser quality, safety, and reliability requirements for Boeing parts than Boeing does is hard for me to fathom.

13. Similarly, ensure designated electrical bonds have required inspections on the plans as well that record resistance values. I don't offhand remember any for the numerous electrical bonds performed at Accra on assemblies.
14. Please check the tooling used for inspection (or that is supposed to be used for inspection) for the flight control surface attachment fittings noted in item number four above as well as other parts that have concentricity requirements for installed bushings that need to be checked.

When we would do inspection of bushing bore diameter on these parts, we would (at least I would) go to the honing area where the inspection pins for bushing alignment/concentricity were kept on/in cabinets next to the machinery so we could get the pin/tool for the part we were inspecting in order to check concentricity requirements for the part at the same time.

The problem with this system? I believe there were very few jobs out of the many parts (perhaps as few as one part) that called out to inspect for concentricity of the bores/hones of these critical parts. There were just as few that actually called out which P/N pin to use to inspect (on the same part as noted previously, I believe, which was a part built for a Boeing supplier in Australia, I believe, who had supplied the inspection pins for those parts to Accra—in an orange plastic box on top of one of the noted cabinets).

A huge additional problem is the fact that the only pins that appeared to be made per a tooling drawing and may have been inspected per compliance to that drawing were the pins in the orange box for the Australian Boeing supplier that actually may have been the only job to have the planning right (calling out to use the pins to inspect concentricity, and also calling out the tool/pin P/N).

The rest of the pins we used to inspect for concentricity had these problems in common:

- a. They appeared to be made “one off” by the Accra machine shop.
- b. The P/N vibro-engraved into them often didn't match the P/N of the part we used them to inspect, as that part didn't have a tool/pin part numbered for it. I just used the pin that the honer said he used on the part.
- c. They appeared to be made to no “official” tooling drawing. In fact, I believe you will find that there are no valid tooling engineering drawings for them.
- d. The pin P/N wasn't called out on the plan for use in inspection of the part it was used to inspect.

- e. The plan was missing the concentricity inspection callout as well.
- f. That worn out pins are kept next to the “good” pins.
- g. That the good pins may never have been approved by inspection, and certainly were not periodically recertified to ensure they had not worn out of non-existent drawing “tolerance” over time.
- h. There is no assurance that these pins, made by unknown (if existant) drawings to unknown dimensions/tolerances, if used perchance on the part they were made for, are even made to the dimensions such a tool would be required to be made to in order to ensure drawing concentricity requirements were met.

Please ensure, after your investigation, the above discrepancies are documented with findings, each job with bushing concentricity requirements has a buyoff and related wording for the inspector to check concentricity, and the certified by inspection pin is called out on the plan, as well as the engineering approved drawing that made it is listed on the job. Please ensure no parts are shipped until inspected per engineering approved and designed inspection pins for that part used as a media for inspection.

Also, if discrepant, wrong dimensions to ensure concentricity requirements are met, unofficial tooling pins were used (as I know they were) please take efforts to capture all discrepant hardware allowed to escape because of this.

I frequently found fittings that failed concentricity inspection with the noted pins, so don't believe it if they tell your investigators they've never had a rejection with these uncertified/"illegal" media of inspection.

Well, that's as many violations as I remember. I know there were many more I didn't list (such as my supervisor [REDACTED] reworking damaged post-shot peen and finishing paddle fittings (that I brought to him to ask how he wanted the damage documented) with his file set in his tool box, and then asking me to take them to the shop so they could refinish the undocumented reworked area without sending the parts out again to get the illegally reworked area shot peened as required), but I trust a thorough investigation by your team will find many more violations than the above documented ones during their investigation.

I hope that Accra is finally restored to full compliance with its and its customers quality requirements after your investigation, and that the noted personnel behind the outright fraud noted above are referred to the relevant authorities for the applicable legal consequences for their fraud. Nothing could better serve as an example for other Accra employees on the importance of adhering to quality, safety, and reliability ensuring processes and procedures that must be used as required in a conforming aerospace manufacturing QA department.

I believe you were the Assistant Manager at the TAD when I requested that the TAD investigate my report of similar fraud at Boeing. I know that my insistence on the seriousness of the violations I reported and that they be properly and thoroughly investigated rankled some feathers there. Therefore, I ask that you don't include members on the investigation team that were involved in any way with the investigation of that prior report, which, as you likely know, did find many serious noncompliances in the end. If you feel that you cannot be impartial and head the investigation of this report with the necessary thoroughness because of your feelings about me as a result of that first

report, please recuse yourself as well. If you need the letters Nick Sabatini sent me that laid out the many serious violations found by investigators of my prior report of 2002/2003 to judge my veracity in matters such as these, let me know and I'll send them to you.

There is no need to keep my name anonymous during the investigation of Accra's noted violations. But, just as I requested in my other noted report, please don't have your investigators volunteer my name unless it is necessary for the investigation, but in no way impede the investigation in order to not divulge my identity as the reporter of this fraud. They will likely figure out who reported them anyway, and as I will testify against them as required, they will find out my name eventually anyway. I just don't want to make it extra easy for them to figure out who reported their fraud to authorities. I hope that makes sense. I don't want the issue to be my identity as the reporter. I want the issue to be giving you all the tools and support in order to bring Accra finally in compliance for safety and conformity sake after so much reliance on fraud in QA as noted at Accra over the last several years.

I trust that Accra is small enough of a company, and the items asked to be investigated in this letter are so relatively few, that your investigative team can handle this matter thoroughly and will not hesitate to investigate and correct the noted fraud/noncompliances at Accra. I know asking the FAA to investigate the most powerful aerospace company on the planet as I did before was perhaps too much to ask. This time I hope that investigation of Accra will not require similar efforts as I thought I had to do in the case of the prior report in order to get a thorough investigation done that eliminates the fraud and nonconformity in QA at Accra, and treats it as the investigation of fraud it should be, rather than just another ACSEP-type audit.

So, I am placing my trust solely in you to ensure this matter is investigated fully and corrected, and I am not asking for the FAA Administrator's or Congressional representatives' assistance in helping the TAD to do its duty in this regard as I did years ago with the prior report.

To be honest as is my habit, I'm eager to see and compare the TAD's response to this report of fraud with the TAD's response to my previous report, which I was more than unsatisfied with (to put it mildly). I hope that over the years the TAD has improved its processes in these critical matters/investigations per the noted CFR or other applicable investigatory policies, and I hope the TAD's response to this report of serious fraud proves that that has happened.

Again, I apologize for the lateness of this report for the reasons cited earlier.

Please get other agencies involved with helping you investigate and correct this fraud as required (FBI, etc.).

The impending and earlier than I believed first flight of the 787 helped me complete this largely completed report so you could consider whether #7 above needs to be inspected for/addressed on that first airplane or not. I think I have given you enough information with which you and your engineers can make that decision. In a perfect world, this item would have been caught by Boeing (flap support froze up during ground testing, Boeing found shot contamination as the cause, and made Accra redo production sequence to preclude the problem from recurring, e.g.), but we know we don't live in a perfect world. I wanted to ensure you had at least #7 above before first flight, in

the case in may need to be addressed before first flight. The other items I believe are not as time critical.

I've heard of some reorganization/reform in the area of such whistleblower reports such as these. If the TAD is not the correct place to report this type of fraud, please let me know the correct venue for such reports these days.

Please let me know if you or your team needs any additional information from me. I will assist any way I can. Please also report to me to the extent possible the investigation's outcome at the appropriate time.

Sincerely,

A handwritten signature in black ink, appearing to be 'G. Eastman', written in a cursive style.

Gerald Eastman