*COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR **ALLEGATION #5** (ACCORDING THE DODIG REPORT):*
THE COMPLAINTANT ALLEGED: APPROPRIATE AND SUFFICIENT FIELD TESTING REQUIRES DELINEATING SPECIFIC AND BEFITTING OPERATING PARAMETERS WITH SUITABLE ENGINEERING TESTING FORMULATION, FIELD ENGINEERING OVERSIGHT, AND RECORD KEEPING - TO DATE, TO MY KNOWLEDGE, THIS HAS NOT OCCURRED. SIMPLY TURNING, A COUPLE, OR A FEW PUMPS ON FOR 15 TO 45 MINUTES, UNDER UNKNOWN CONDITIONS, WITH MINIMAL OVERSIGHT, AND WITH NO RECORD KEEPING OF THE CONDITIONS, PARAMETERS, OR OVERSIGHT IS NOT SUFFICIENT. THE PUMPING EQUIPMENT FAILURES WITNESSED MOST OFTEN BECAME EVIDENT AFTER HOURS OF RUN TIME UNDER NORMAL OPERATIONAL SPEEDS AND PRESSURES. AT A MINIMUM, REAL EVENT OPERATING CONDITIONS (AS IN A HURRICANE, I.E., FULL OPERATING SPEEDS AND PRESSURES) AND RUN TIMES (12 TO 24 HOURS OR MORE) SHOULD BE APPLIED FOR ANY FIELD TESTING TO ENSURE THE PUMPING EQUIPMENT OPERATES AS INTENDED, AND DESIGN DEFECTS HAVE BEEN MITIGATED PROPERLY.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	and we had approximately 17.5 million gallons of water available to do so. These facts are in direct conflict with the statements, analysis and conclusion reached by the DoDIG Report. Further, no more than a single hydraulic pump could have actually been tested. Known: Assuming each pump being tested is at full operating speeds and pressures, the discharge rate is then 200cfs. Running the pump for 2 hours requires 10.8 million gallons of water. If there were 17.5 million gallons of water available, and one pump requires 10.8 million gallons of water, that that means 1.62 hydraulic pumps could be run. Since a fraction of a pump cannot be run when trying to get true testing done, this means only 1 pump was capable of being successfully tested on March 31, 2007. One pump, not 10 pumps. Finally, with 17.5 million gallons of water available, 10 hydraulic pumps could really run only 20 minutes. With 200 cfs for each pump, 10 pumps, gives 2000 cfs, which is equal to roughly 875,000 gallons of water per minute. This yields less than 20 minutes of runtime-not 2 hours. There have not been actual or simulated storm events (as evidenced by documentation of testing that has taken place and NOAA rainfall runoff records) that NOD could have used to test all of the hydraulic pumps at continuous, full operating speeds and pressures for any substantive period of time.	
	My analysis proves it is physically and mathematically impossible to have conducted acceptance testing for a single hydraulic pump, much less 10 hydraulic pumps, run continuously at full operating speeds and pressures for 2 hours on March 31, 2007.	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #5*** **(ACCORDING THE DODIG REPORT):**
THE COMPLAINTANT ALLEGED: APPROPRIATE AND SUFFICIENT FIELD TESTING REQUIRES DELINEATING SPECIFIC AND BEFITTING OPERATING PARAMETERS WITH SUITABLE ENGINEERING TESTING FORMULATION, FIELD ENGINEERING OVERSIGHT, AND RECORD KEEPING - TO DATE, TO MY KNOWLEDGE, THIS HAS NOT OCCURRED. SIMPLY TURNING, A COUPLE, OR A FEW PUMPS ON FOR 15 TO 45 MINUTES, UNDER UNKNOWN CONDITIONS, WITH MINIMAL OVERSIGHT, AND WITH NO RECORD KEEPING OF THE CONDITIONS, PARAMETERS, OR OVERSIGHT IS NOT SUFFICIENT. THE PUMPING EQUIPMENT FAILURES WITNESSED MOST OFTEN BECAME EVIDENT AFTER HOURS OF RUN TIME UNDER NORMAL OPERATIONAL SPEEDS AND PRESSURES. AT A MINIMUM, REAL EVENT OPERATING CONDITIONS (AS IN A HURRICANE, I.E., FULL OPERATING SPEEDS AND PRESSURES) AND RUN TIMES (12 TO 24 HOURS OR MORE) SHOULD BE APPLIED FOR ANY FIELD TESTING TO ENSURE THE PUMPING EQUIPMENT OPERATES AS INTENDED, AND DESIGN DEFECTS HAVE BEEN MITIGATED PROPERLY.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	In addition, given a review of the status of the hydraulic pumps (in various states of repair, installation, etc.), and given the rainfall records for the area surrounding the three outfall canals, it is not physically and mathematically possible to have completed this testing, as reported in the DoDIG Report, at any point during the time period in question (August 2006 through May 2007).	
	Next, Col. Bedey's statement that "we don't have enough water in the canal" when testing hydraulic pumps, and why such acceptance testing could not have take place, is really because there is a design flaw. **The Corps' own design flaw is what precludes effective testing of the installed hydraulic pumps** (a review of my Supplemental Affidavit, dated March 15, 2008, is imperative). The contractually-specified Maximum Head Operating Design Point, with a design discharge flow rate of 85,000 gpm, against Total Dynamic Head (TDH) for the hydraulic pump, was off by two feet (it was 16.8 feet rather than 18.8 feet.). This results in the currently-installed hydraulic pumping equipment being 2 feet less submerged than the original design criteria specified, and pumping at a TDH greater than originally specified. At normal canal water levels (zero elevation), the original "pump on" design submergence (if no design flaw existed) left the pumping equipment operating at over 5 feet below that required by the Hydraulic Institute Standards (HIS) for submergence (about 10 ¾ feet, using the HIS 1994 Edition; 13 feet using the HIS 1998 Edition - for purposes herein, using the lesser value). To clarify further, the pump design specified by the Corps defined the "pump on" elevation as 4 feet, and a "bottom of bell" elevation of 6 feet, bringing total submergence to 10 feet - about 1 foot less than that required by the HIS. Adding this 1 foot to the lacking 4 feet of water	

*COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR **ALLEGATION #5** (ACCORDING THE DODIG REPORT):*
THE COMPLAINTANT ALLEGED: APPROPRIATE AND SUFFICIENT FIELD TESTING REQUIRES DELINEATING SPECIFIC AND BEFITTING OPERATING PARAMETERS WITH SUITABLE ENGINEERING TESTING FORMULATION, FIELD ENGINEERING OVERSIGHT, AND RECORD KEEPING - TO DATE, TO MY KNOWLEDGE, THIS HAS NOT OCCURRED. SIMPLY TURNING, A COUPLE, OR A FEW PUMPS ON FOR 15 TO 45 MINUTES, UNDER UNKNOWN CONDITIONS, WITH MINIMAL OVERSIGHT, AND WITH NO RECORD KEEPING OF THE CONDITIONS, PARAMETERS, OR OVERSIGHT IS NOT SUFFICIENT. THE PUMPING EQUIPMENT FAILURES WITNESSED MOST OFTEN BECAME EVIDENT AFTER HOURS OF RUN TIME UNDER NORMAL OPERATIONAL SPEEDS AND PRESSURES. AT A MINIMUM, REAL EVENT OPERATING CONDITIONS (AS IN A HURRICANE, I.E., FULL OPERATING SPEEDS AND PRESSURES) AND RUN TIMES (12 TO 24 HOURS OR MORE) SHOULD BE APPLIED FOR ANY FIELD TESTING TO ENSURE THE PUMPING EQUIPMENT OPERATES AS INTENDED, AND DESIGN DEFECTS HAVE BEEN MITIGATED PROPERLY.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	(there were no storm hurricane conditions) required for "pump on" during "normal canal water levels" (zero elevation) results in a 5-foot deficit. Accordingly, it is reasonable to state, significantly beyond the edge of the pump design, it is difficult, but not impossible (wait for high tide, store water from rain events prior to testing, etc.), to operate pumps at anything but storm conditions. The design flaw has now subjected the pumping equipment to submergences over 7 feet below that required by HIS requirements during normal canal water levels, less than half that required by the HIS. Operation of the pumping equipment, to facilitate testing in place (installed), is not possible at zero water: elevation and below without severe and likely catastrophic damage to the pumping equipment. This explains why testing at continuous full operating speeds and pressures, for limited minutes, not hours, is the reality of what has been accomplished to date for all the hydraulic pumps. The DoDIG Report makes further mention of the 36-hour test run as somehow relevant to their conclusions in this allegation. This issue has already been addressed, above. The subject test was done using a MWI rental pump, not one of "our" hydraulic pumps. The DoDIG's conclusions as to what constitutes a reasonable duration of time for acceptance testing to be run are incorrect due to the facts upon which they relied. As has already been discussed, the subject 2-hour acceptance testing could not have taken place. Regardless, that the DoDIG Report would find a 2-hour acceptance test (mechanical integrity test) sufficient is without any basis given the documentation that exists. Documentation from May through July 2006, from the USACE, delineated TFG's own concepts as to an acceptable period of time the subject hydraulic pumps should be run during acceptance testing. An email dated May 17, 2006 from	

*COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR **ALLEGATION #5** (ACCORDING THE DODIG REPORT):*
THE COMPLAINTANT ALLEGED: APPROPRIATE AND SUFFICIENT FIELD TESTING REQUIRES DELINEATING SPECIFIC AND BEFITTING OPERATING PARAMETERS WITH SUITABLE ENGINEERING TESTING FORMULATION, FIELD ENGINEERING OVERSIGHT, AND RECORD KEEPING - TO DATE, TO MY KNOWLEDGE, THIS HAS NOT OCCURRED. SIMPLY TURNING, A COUPLE, OR A FEW PUMPS ON FOR 15 TO 45 MINUTES, UNDER UNKNOWN CONDITIONS, WITH MINIMAL OVERSIGHT, AND WITH NO RECORD KEEPING OF THE CONDITIONS, PARAMETERS, OR OVERSIGHT IS NOT SUFFICIENT. THE PUMPING EQUIPMENT FAILURES WITNESSED MOST OFTEN BECAME EVIDENT AFTER HOURS OF RUN TIME UNDER NORMAL OPERATIONAL SPEEDS AND PRESSURES. AT A MINIMUM, REAL EVENT OPERATING CONDITIONS (AS IN A HURRICANE, I.E., FULL OPERATING SPEEDS AND PRESSURES) AND RUN TIMES (12 TO 24 HOURS OR MORE) SHOULD BE APPLIED FOR ANY FIELD TESTING TO ENSURE THE PUMPING EQUIPMENT OPERATES AS INTENDED, AND DESIGN DEFECTS HAVE BEEN MITIGATED PROPERLY.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	Jim Bartek (USACE, MVR) sent to Steve Farkus (USACE, MVS)-in the ITR, Jim St Germain explains that Steve Farkus was brought in to assist TFG with analysis and recommendations for the pumping equipment-reflects the way the Corps' own pump experts evaluated a suitable duration of time such acceptance testing should be run: [T]hey are looking for input for field testing of the pumps. I would agree with Ms. Garzino's recommendations below. I believe we recommended a duration of 8 hrs for a test run. . . Email from Jim Bartek to Steve Farkus, May 17, 2006. The reply to this states: For the field testing one thought might be to test each individual pump for a period of time (6 hours?) and then test each set of 3 pumps at the same time for a short period (1 hour). The second test would allow for a check of the discharge header for possible leaks under full flow conditions . . . Email from Steve Farkus to Jim Bartek, May 18, 2006. Further, email from MWI to TFG pump team states: Jim and Dan... For the London Ave. East Platform, we are requested to perform the following: Remove Denison pumps from 6 drive units on Friday June 7th On Saturday, we will have a representative from Hydra-Dyne/ Denison present to inspect the cams and record condition. Then	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #5*** **(ACCORDING THE DODIG REPORT):**
THE COMPLAINTANT ALLEGED: APPROPRIATE AND SUFFICIENT FIELD TESTING REQUIRES DELINEATING SPECIFIC AND BEFITTING OPERATING PARAMETERS WITH SUITABLE ENGINEERING TESTING FORMULATION, FIELD ENGINEERING OVERSIGHT, AND RECORD KEEPING - TO DATE, TO MY KNOWLEDGE, THIS HAS NOT OCCURRED. SIMPLY TURNING, A COUPLE, OR A FEW PUMPS ON FOR 15 TO 45 MINUTES, UNDER UNKNOWN CONDITIONS, WITH MINIMAL OVERSIGHT, AND WITH NO RECORD KEEPING OF THE CONDITIONS, PARAMETERS, OR OVERSIGHT IS NOT SUFFICIENT. THE PUMPING EQUIPMENT FAILURES WITNESSED MOST OFTEN BECAME EVIDENT AFTER HOURS OF RUN TIME UNDER NORMAL OPERATIONAL SPEEDS AND PRESSURES. AT A MINIMUM, REAL EVENT OPERATING CONDITIONS (AS IN A HURRICANE, I.E., FULL OPERATING SPEEDS AND PRESSURES) AND RUN TIMES (12 TO 24 HOURS OR MORE) SHOULD BE APPLIED FOR ANY FIELD TESTING TO ENSURE THE PUMPING EQUIPMENT OPERATES AS INTENDED, AND DESIGN DEFECTS HAVE BEEN MITIGATED PROPERLY.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	the Denison units will be reinstalled. On Sunday, at 7am, we plan to start the 6 water pumps for a 6 hr test. Upon conclusion of testing, we will again remove and inspect the Denison cams and record condition with a Hydra-Dyne/Denison representative present. *Id.* (emphasis added). Email from Dana Eller, MWI, to Mr. Jim St Germain, July 7, 2006. Also, in **June** 2006, the follow-on contract solicitation from the USACE TFG for the additional 6 hydraulic pumps cites in the specifications a 5-hour testing duration. No documentation available to me as an engineer and contract administration specialist supports the conclusions of the DoDIG Report. Nor does publicly-available evidence. Nor does evidence cited by DoDIG investigators. All available documentation points in the opposite direction.	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #6*** **(ACCORDING THE DODIG REPORT):**

DEFECTIVE AND UNTESTED PUMPING EQUIPMENT WAS INSTALLED.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
Facts: As discussed above, 9 water pumps were not factory tested prior to installation and one HPU was received at the site without Government approval of the 3 hour factory testing. Problems identified at the factory testing included undersized gear oil circulation motors, hydraulic motor vibrations, suspect pipe welds, and lower than expected pumping capacity. Under the contract, final acceptance of the hydraulic pumping systems was not at the factory. It occurred in the field after, final acceptance testing. Additional hydraulic pumping system issues were identified and corrected in the field, including hydraulic oil with foreign contamination (metal shavings and a jello like substance). We found that the problems were solved and that are now fully operational. The December 31, 2007 GAO Report addressed the issue as~ Each pumping system has been successfully tested on site "providing greater assurance that they perform as designed during future hurricane seasons ... the Corps stated that all of the outstanding repairs have been completed and on-site testing indicates that the Hydraulic pumping systems are fully operational. Final acceptance of the pumping systems is expected to be completed early in calendar year 2008. **Analysis:** The allegation was partially substantiated. All HPUs were tested at the factory before shipping. However, as noted above, one HPU failed factory\ test but was shipped to the site and 9 water pumps were not tested at the factory. However, all defects related to these problems were fixed at the installation sites. Indeed, the USACE has taken extensive corrective actions to fix the problems at the sites from April 2006 until May 2007. All 40 HPUs are in place and have been successfully installed and tested. We consider this approach reasonable in view of the urgency of achieving an immediate improvement to New Orleans' flood control protection and the unprecedented capacity of these individual pumping units.	**Response: Installation - Allegation No.6** In this allegation, the DoDIG Report mainly restates issues previously addressed in response to Allegation #3 and elsewhere. Please review my Response to Allegation No. 3. The DoDIG Report restates incorrect information. The fact is that 24 PAs were not performance-tested at the factory, **not the smaller number of 9 they admit to failing to test.** In addition, when the DoDIG report identifies the hydraulic pumping equipment failures experienced at the factory, there now appears to be a complete omission of all Denison hydraulic pump failures (20 counting only those "seen" by government employees); all hydraulic high pressure hose failures (7 counting only those "seen" by government employees); and all PA failures (4). These omitted failures constitute over 90% of the serious failure issues (experienced during factory testing) I brought forward - issues that, if they were to have happened in the field during a hurricane or tropical storm event, would mean irreversible and catastrophic failure of the pumping system. The DoDIG Report fails to address these massive and potentially catastrophic failures. As discussed in my Response to Allegation No.3, failed and failing hydraulic pumping equipment components were delivered and installed at all three closure structures, with absolutely no remedial measures taken. Sadly, the TFG pump team provided public and internal statements that the pumping equipment was not defective and would operate as required by the contract-statements that were blatantly false. Additionally, as discussed in my Response to Allegation No.5, none of the mentioned testing has been done in a manner that can check the mechanical integrity of the pumping equipment - run continuously at full speeds and operating pressures for a substantive amount of time. No documentation available to me via USACE, publicly-available information, or evidence cited by DoDIG investigators supports the conclusions of the DoDIG Report. What is available is quite to the contrary.	**APARIQ believes this allegation valid.** **For further discussion about this allegation, please see Section 3.3.1 on page 78.**

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ALLEGATION #7 (ACCORDING THE DODIG REPORT):

USACE ALLOWED LESS THAN FULL DESIGNED CAPACITY PERFORMANCE AS CALLED OUT IN THE CONTRACT.

According to the DoDIG Report No. D-2008-TD-005

Facts: The contract stated that the pump shall be able to operable through the entire range and within a tolerance of 0 to plus 5% of capacity in gallons/minute (gpm) at a given Total Dynamic Head in feet of water. The required capacity in this operable range is specified in the following chart from the contract: calculations:

Desin Condition Design Point	Max Head	Operating Point	Low Head Design Point
Flow:	85,000 gpm	98,000 gpm	105,000 gpm
Total Dynamic Head (TDH)	16.8 ft.	12.1 ft.	8.5 ft.
% efficiency	80%	81%	80%
Cu.Ft. H2O Pumped in 55 minutes:	56,822 cu.ft.	65,513 cu.ft.	70,193 cu.ft.
Max. Speed	400 RPM	400 RPM	400 RPM
Max. Horse Power (HP)	720	690	640

The Request for Proposal (RFP) required and the contractor provided a certified pump curve based on model studies identifying that the pumps proposed met contract requirements. The original contract required a full scale capacity test on each pump. Following the initial full size factory tests, USACE's pump testing consultant traveled to the contractor's facility to assess testing issues and production delays. The consultant's report stated:

I recmended dropping the pump performance tests and adding an endurance test for three main reasons. First, there was expected to be only slight variations in pump performance considering they were all manufactured to be identical. Secondly, I had a low confidence level in the validity of the current performance tests and third needed endurance testing to weed out mechanical problems

Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position

Response: Operational Capability - Allegation No.7

It appears the DoDIG lacks a good understanding of the engineering associated with pumps and pump tests to determine discharge and head; instead, they have instituted their own "adjustment" to the values report by the USACE ERDC (Engineer Research Development Center) team-an "accuracy factor" that, when applied, decreases the actual values reported by ERDC. In point of fact, the values arrived at by ERDC already contain an "adjustment for accuracy" embedded in the assumptions and calculations used to arrive at the values obtained. The DoDIG's fuzzy math is just a way to get the answers they seek.

I also think the DoDIG was likely confused. The error factor of plus-or-minus 5% that they applied to all the testing done was to be applied only to the factory testing that MWI performed in April through May 2006 - not the testing conducted by ERDC (see Page 8 of the ITR, Attachment entitled "Data Report on Factory Tests of Discharge ... Dr. Stephen T. Maynord"). Again, DoDIG relies on phony calculations to obtain the result desired.

Contrary to what is presented in the DoDIG Report, this is not an Allegation, or issue, I have ever brought forward with regards to operational functionality. My concern has always been the operability of the pumping equipment (i.e. if these pumps are turned on during a hurricane will they STAY turned on), not whether they pump 5-10% less than the contract dictates. That is a monetary issue - and one that I do not feel warrants the attention it has received (when looking at a cost-benefit analysis). In the realm of what is important in this investigation, this issue does not even register for me. It appears to be a straw-man that has been put forth by DoDIG so that it can be easily knocked down. It is important only for how it was investigated and the results presented. .

APARIQ Related Comments

APARIQ believes this allegation valid.

For further discussion about this allegation, please see Section 3.4.1 on page 80.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments

before the pumps are shipped to New Orleans.

The USACE initiated a contract modification to implement these recommendations and replace the full scale capacity test with a model test.

In order to validate the contractor's original model test results, a full scale factory test was performed by the contractor in conjunction with ERDC in December 2006. The test results indicated that at the specified operating total dynamic head conditions, the measured discharge capacity was less than required as shown in the following chart:

TDH	Required Capacity	Actual Capacity	% Reduction
16.8 ft.	85,000 gpm	82,960 gpm	6/5%
12.1 ft.	98,000 gpm	93,982 gpm	4.1%
8.5 ft/	105,000 gpm	98,280 gpm	2.4%

USACE stated that the accuracy of the instrumentation for this test was +/- 5%.

Because the original model test was not witnessed by the Government, the USACE and the contractor agreed to perform an additional model test to ensure the accuracy of the measured capacity of the pumping systems. The model test was conducted by the contractor in cooperation with USACE's ERDC in September 2007. The model test revealed that the hydraulic pumping systems' capacity was 1.4 percent less than required by the contract. The USACE stated that the deficit did not have significant impact because the 1.4 percent was within the testing equipment margin of error and the interim system comprised of both the hydraulic and direct drive pumping systems still exceeded the 10 -year event system design criteria.

Model testing was considered more accurate for pumping capacity. The use of a model test is standard practice for a pump of this size according to both the USACE Engineering Manual 111 0-2-31 05 and

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #7*** **(ACCORDING THE DODIG REPORT):**
USACE ALLOWED LESS THAN FULL DESIGNED CAPACITY PERFORMANCE AS CALLED OUT IN THE CONTRACT.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
the HI Standard, ANSI/HI 2.62000. **Analysis:** The allegation was substantiated. The model testing did show that the hydraulic pumping systems' capacity was 1.4 percent less than required by the contract. However, the USACE stated that the deficit did not have significant impact because the 1.4 percent was within the testing equipment margin of error and the interim system comprised of both the hydraulic and direct drive pumping systems still exceeded the 10-year event system design criteria. Because the total system is capable of meeting the 10-year event design criteria, we find no basis to recommend equipment redesign or upgrade.		

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ALLEGATION #8 (ACCORDING THE DODIG REPORT):

THE COMPLAINTANT ALLEGED: THE TASK FORCE GUARDIAN ACE [USACE] TEAM VIOLATED FEDERAL PROCUREMENT REGULATIONS WITH NUMEROUS AND CONSEQUENTIAL UNAUTHORIZED COMMITMENTS, ACTED WITH IMPLIED AUTHORITY WITHOUT THE KNOWLEDGE OR CONSENT OF THE CONTRACTING OFFICER, FAILED TO TAKE CORRECTIVE ACTION WHEN KNOWLEDGE OF CONTRACTING IMPROPRIETIES WERE MADE EVIDENT, AND REFUSED TO IMPLEMENT CONTRACT ADMINISTRATION ACTIONS ORDERED BY CONTRACTING OFFICER TO MITIGATE PUMPING DESIGN DEFICIENCIES

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
Allegation #8: The complaintant alleged: The Task Force Guardian ACE [USACE] team violated Federal procurement regulations with numerous and consequential unauthorized commitments, acted with implied authority without the knowledge or consent of the Contracting Officer, failed to take corrective action when knowledge of contracting improprieties were made evident, and refused to implement contract administration actions ordered by Contracting Officer to mitigate pumping design deficiencies **Facts:** The USACE contracting officer stated that she was in constant contact with the USACE team. We reviewed numerous emails, memorandums, records *of* daily phone calls, and documentation of meetings with the USACE project manager that confirmed continual contact throughout the entire process of the testing and delivery of the hydraulic pump system to the three sites. We found evidence that the USACE team addressed each of the problems identified in those records, both at the factory and on site as a result, of the continuous involvement of the contracting office modifications were made to the contract from February 15, 2006 to November 13, 2007. For example the modifications involving funds included specification changes to hydraulic piping and hose. Additionally, revisions of testing procedures were made at no cost to the Government. The December 31,2007 GAO report stated: We found much of the documentation that the ITR specifically cited as missing - including request for proposals, independent government estimates, certified cost or pricing data, technical analyses, and price negotiation memorandums - was not required, because documentation was not relevant to the contract modifications in question ... our review found that, for the most of the contract modifications, there was evidence of some analysis by the Corps and extensive back and forth discussion, usually by email, between officials from the Corps and ... [the contractor]. **Analysis:** We found insufficient evidence to support the allegation. Documentation confirmed continual interaction between the	**Response: Contract Issues - Allegation No.8** The DoDIG report states the CO was in constant contact with the USACE pump team this is a true statement, from my own personal knowledge. However, the DoDIG Report fails to mention that the TFG pump team was coordinating dozens and dozens of other outstanding actions completely unrelated to the pumping equipment contract. This fact, which I know from my own personal knowledge, minimizes the seeming importance of the daily contact. Furthermore, I know from first-hand knowledge the CO was kept in the dark as to the true status and disposition of the hydraulic pump contract. That the CO kept in constant contact with the TFG pump team during testing and delivery of the pumping equipment is irrelevant if she was not informed of the actual ongoing status of the hydraulic pumping equipment contract. I know of no documentation that exists that supports the contention made by the DoDIG Report; in fact, the opposite is more likely true: no such documentation exists. As the lead person in the field for the pumps (during testing and installation), I would have been copied on any emails pertaining to this matter. I was not. In addition, 1was informed by the COs contact specialist that neither of them were aware of any contractual changes to the required factory testing prior to my bringing it to their attention. Please refer to my original Declaration and Affidavit with all cited references. Regardless, constant contact, no matter the content, does not substitute for Federal Regulations as to what information must be reflected in the contracting documents - the content of the supposed "contact" must be reflected in these contract documents. For example, with regards to factory testing, it is not proper to revise testing procedures 10 times and not exercise any contract modification, save a single time, almost three weeks after the fact (for the last "revision"), and then only because I brought it to the CO's attention by raising it with her Contract Specialist. If factory testing requirements changed 10 times, then there should have been contracting documentation that acknowledged this fact and accounted for it in any final, acceptable disposition of factory testing requirements. I know for a fact that the CO knew absolutely nothing about testing requirements changing as they did. There is a	This Allegation appears to be true, but requires additional verification through interviews and additional contractual document review. APARIQ (as stated in the APARIQ contract) "will not have access to proprietary information or attorney product material." This restriction limits what APARIQ can review relative to this Allegation and limits APARIQ's ability to pragmatically arrive at a factual and balanced perspective for this Allegation. The Complaintant, Ms. Maria Garzino, has provided significant and careful documentation regarding this allegation in rebuttal to the statements and conclusions drawn in both the first and the second DOD IG reports. APARIQ believes that the OSC has significant expertise in sorting through the contractual facts, the documents, the statements. and will arrive at an opinion about this contractual, contract administration, and procurement allegation without further comment from APARIQ.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
contracting officer and other members of the USACE team throughout the acquisition process. The contracting officer stated that she was in daily contact with the project manager throughout the duration of the project. The Jacksonville quality control team provided technical support for the USACE team by providing oversight of the factory testing.	mountain of email and redundant eyewitness accounts that substantiate this fact. Further, the ITR states clearly that after a review of all the contracting documents surrounding the factory testing, they found that the TFG USACE team violated Federal procurement regulations, citing unauthorized commitments and acting with implied authority without the knowledge or consent of the CO - excerpt as follows: No official contract changes were made to relax testing requirements.... More than one revision to the testing procedures occurred and changes were made by implied authority by email and verbal communications from both Corps and non Corps of Engineers employees without any Contracting Officer authorities. Testing was not performed in accordance with the contract documents The *original* testing performed at MWI was not in accordance with HI standards nor was full-size factory performance testing of each pump performed as required by the contract. USACE MVN Outfall Canal Pumps Independent Team Report, Released May 24, 2007. In addition, as I describe later in this document when I respond to Allegation No. 12, the contract modification for hydraulic pipe flushing/cleaning was not done in accordance with Federal Regulations. I will prove that the TFG CO did not enforce the terms and conditions of MWI's contract, and in effect knowingly issued a contract modification to MWI to remain at the site and perform work that was not initially done, and work already required by the terms and conditions of MWI's original contract award, and work that cost the American taxpayers and additional $683K. The DoDIG reports inference that by USACE somehow performing adequate QA functions in the field during factory testing can aleve or lessen the need for adequate contract administration is confusing and misguided. The QA functions performed in the field by USACE do not substitute for contract administrative functions by the TFG pump team - especially when the QA reports and associate documents (my trip reports, MFRs, emails, etc. during this same period) point to serious and substantial operational problems with	

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	the hydraulic pumping equipment. Any further comment by me regarding this issue is not possible without seeing the documents the DoDIG relied on to arrive at their conclusion, and without a copy of the documents cited in the ITR with regard to the contract administration issues. No publicly-available documentation, documents provided to me as an engineer and contract administration specialist, or evidence cited by DoDIG investigators support their conclusion; if anything, it counsels the opposite.	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ALLEGATION #9 (ACCORDING THE DODIG REPORT):

USACE TEAM PERSONNEL DID NOT ENGAGE IN USUAL AND CUSTOMARY CORPS OF ENGINEERS CONTRACT ADMINISTRATION PRACTICES OR CONDUCT PROJECT OVERSIGHT AND DOCUMENTATION THAT WOULD ENSURE EVEN MINIMUM REQUIREMENTS COULD BE MET TO PROTECT THE GOVERNMENT'S INTERESTS

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
Facts: The contract stated: The field test shall be witnessed by the Government ... Start-up tests and demonstration shall be performed by the pump manufacturer's representative and the Contractor, and witnessed by the Government... The contract also required full size factory testing witnessed by the Government prior to shipment of the pumps. However, we found that the process for Government sign-off on the factory testing and designation of who had the authority to approve that the equipment was ready for shipment was not formalized. The contract administration and documentation issue was extensively addressed by the MFR, ITR and the GAO reports. These reports found numerous deficiencies in contract documentation. The June 4, 2007, MFR has addressed documentation, contract administration and oversight issues partially. It stated: My expectation is that the team should document their ongoing contract procurement actions even while working under crisis conditions. I will form a team to help them bring the documentation file up to date. An improvement in future operations would be to deploy a contract administration team to work along side the project delivery team, with the sole focus of performing and assuring correct and complete contract actions and documentation." It further stated: "Meanwhile our team of engineers worked with the manufacturer in the factory to adjust/retrofit/improve the pumps in actual field conditions daily to assure that the pumps reached the required level of reliability. The ITR found certain key elements of the solicitation documents missing from the contract files. The ITR also noted several change orders (contract modifications) with apparent missing documentation. The December 31, 2007 GAO report also stated: Contract files for the pumping systems, although incomplete at the time of the ITR review, now contain the required documentation for the type of contract and value of the associated modifications. In a number of cases, Corps officials inserted required documentation in the contract files several	<u>Response: Contract Issues - Allegation No.9</u> As an initial matter, I find this to be a confusing characterization of my Allegation - from the way it is stated, to the "facts" presented, to the analysis offered. Various statements made in the DoDIG Report are false, to wit: • The process for "sign-off on the factory testing and designation of who had the authority to approve that the equipment was ready for shipment" is easily understood-unlike DoDIG's statement that it was "not formalized." To the contrary, there was no need for government sign-off at the factory, as MWI was solely responsible for QC. In fact, it would be a deviation from usual and customary practice *if* the government did perform sign-off at the factory. Such a requirement would be clearly delineated in the contract documents. In addition, the need for government sign-off was worded such that it was at the discretion of the government, and it did so per directives from the TFG pump team. Given the emergency nature of this procurement, it was imperative that problems/issues be "seen" and addressed at the earliest possible moment; therefore, the government opted to be 100% present (in presence only, not in participation) to protect its interests as best as possible. 'I • Contrary to the citation from the June 4, 2007, MFR, the USACE "team of engineers" did NOT work with MWI in the factory to adjust/retrofit/improve the pumps. To do so would have constructively relieved MWI of their contractual responsibilities. Our USACE "team of engineers" performed only observations and QA functions, constantly reporting forward problems/issues so the TFG pump team would hopefully take action to hold MWI accountable for required contract deliverables through proper contract administration - this never happened as the TFG pump team abdicated usual and customary Corps of Engineers project oversight. The results of this was the TFG pump team engaged in numerous violations of Federal Regulations and committed gross mismanagement and gross waste of public funds. • A Contracting Officer Representative (COR) at the factory is NOT necessary CORs are for the contract, not individual portions of the deliverables of the contract. The COR for the	This Allegation appears to be true. Based on the review of documents for this report, there was: 1. **Little logical justification for *(Serious violations of laws or regulations, abuse of authority, or gross mismanagement as related to)*** a. Restricting the emergency pumping capability solicitation No.W912P8-06-R-0089 to under-designed and untested hydraulic pump systems <u>only,</u> especially when the chosen hydraulic pump systems took longer to procure, design, factory test, and install than proven direct drive pumps (428 days vs. 236 days); b. Not adequately verifying that MWI had successfully run hydraulic pumping systems of the same size (and capacity) or larger for more than five years (otherwise most of this investigation would not be necessary): c. Allowing significant deviations from the solicitation requirements and bid proposal specifications, then relaxing critical requirements when MWI could not meet the requirements (which may have been a result of misleading or fraudulent representations); d. Not requiring the installation of a reliable pumping system which would adequately protect New Orleans, should additional funding be delayed or cancelled; e. Not requiring that any "temporary" (if they were truly "temporary" pumping systems be put on removable skids for ease of installation, ease of replacement, and ease of maintenance (both on-site and off-site). 2. **Little logical justification for *(Gross waste of government funds as documented in the 27 April 2009 ECM-GEC Joint Venture Report and reflected by)***; a. Spending $100's of millions (for pump procurement and pump infrastructure

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ALLEGATION #9 (ACCORDING THE DODIG REPORT):

USACE TEAM PERSONNEL DID NOT ENGAGE IN USUAL AND CUSTOMARY CORPS OF ENGINEERS CONTRACT ADMINISTRATION PRACTICES OR CONDUCT PROJECT OVERSIGHT AND DOCUMENTATION THAT WOULD ENSURE EVEN MINIMUM REQUIREMENTS COULD BE MET TO PROTECT THE GOVERNMENT'S INTERESTS

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
months after modifications were issued and only after the ITR reported its findings. The ITR correctly noted the absence of some required documentation. However, we found much of the documentation that the ITR specifically cited as missing-including requests for proposals, independent government estimates, certified cost or pricing data, technical analyses, and price negotiation memorandums-was not required, either because documentation was not relevant to the contract modifications in question ... Further, the contract itself was not written as precisely as it should have been. Specifically, the original factory test requirements were ambiguous, there were limited provisions for on-site testing, and there were no criteria for acceptance of the pumping systems by the government. GAO recommended that the USACE: Take steps, through additional guidance or otherwise, to reinforce the importance of adherence to sound acquisition practices even during expedited procurements, including ensuring that important contract provisions, such as any required testing, are clear and that the contractor and the government understand what conditions or criteria must be met for successful completion of the contract. DoD (and the Army) concurred with the recommendation and stated that USACE will review and revise, as necessary, current policies and regulations to ensure that a reasonable period of time is identified for completing and filing contract documents. We found evidence of Government's project oversight during factory and on-site testing of the pumping systems. The complaintant herself was a member of the factory test oversight and site installation teams. Although a supply contract did not require appointment of a contracting officer's representative (COR), USACE appointed the on-site resident engineer as the COR for the pump contract. The USACE stated that a COR was not appointed at the factory, as there was a shortage of qualified personnel. **Analysis:** The allegation concerning inadequate documentation was substantiated. Several audits and examinations found significant deficiencies in contract documentation. We consider it appropriate that the Army has taken actions to emphasize the future need for	contract can preside over any needed action required at the factory testing. Why the DoDIG finds a need to muddle, confuse, and imply some deficiency with regards to this matter eludes me. Interestingly, however, the conclusory Analysis somehow finds a way to state that, even though inadequate documentation was substantiated, they found that there was still ample project oversight at the factory and the installation sites. If adequate contract administrative functions were not performed, what substituted for insuring the government's interests were protected? The reports and submitted assurances from the field personnel? This appears to be the logic used. If so, then why does the Analysis not account for the voluminous documentation of there being serious problems regarding the government's interests being violated? None of the publicly-available information, DoDIG information, or information provided to me as an engineer and contract administration specialist supports the conclusions of the DoDIG Report.	installation) in 2007 to install forty (40) MWI hydraulic pumps, which are scheduled to be replaced at an estimated cost of >$430 million within 3-5 years, when the purchase of proven direct drive pumps could have been accomplished more quickly, more reliably, and without planning for pump capacity replacement; b. Selecting and installing hydraulic pumping equipment that could not be maintained i. at the lowest operating and maintenance (O&M) costs, and ii. without using a large lifting crane; c. Installing hydraulic equipment which was not adequately protected against corrosion, which further decreased reliability, decreased operating lifetime, and increased O&M costs; d. Installing hydraulic equipment without containment protection to prevent hydraulic leaks (from system failures and storm damage) from polluting waterways, (potentially violating the Clean Water Act).

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
proper documentation, despite project urgency. We found that USACE provided ample project oversight at the factory as well as at the installation sites.		

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR **ALLEGATION #10** (ACCORDING THE DODIG REPORT): *ORIGINAL BIDDERS FOR THE CONTRACT WOULD NOT HAVE BEEN REJECTED IF THE REQUIREMENT FOR FACTORY LOAD TESTING THAT WAS SUBSEQUENTLY DELETED FROM THE CONTRACT HAD NOT BEEN IN THE REQUEST FOR PROPOSAL.*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
Facts: The December 31,2007 GAO Report addressed the issue as follows: The testing specifications used for the RFP were nearly identical to those published by ... [the winning contractor], which included an open sump test requirement. After the other manufacturers complained that the open sump test requirement was restrictive because only ... [the winning contractor] had an open sump, the Corps amended the RFP to delete this requirement. This open sump test requirement was incorporated into the contract at the time of award, however, because it was offered by ... [the winning contractor] as part of its proposal. USACE representatives stated that the open sump test requirement was deleted from the RFP and was not a factor in the source selection. It therefore, had no effect on the original bidders' ability to compete. According to the contracting officer, who was also the Source Selection Official, neither the full scale open sump test nor the contractor facilities was a factor in the final selection of the pump manufacturer. During the source selection, each contractor was judged only on its technical approach, project management expertise, past performance, and small disadvantaged business initiatives. The winning contractor was rated significantly higher on the selection criteria. The winning contractor's proposal included the conduct of full scale performance testing at the factory and therefore, it was left in the contract. **Analysis:** The allegation was not substantiated. Indeed, the requirement for open sump testing that some bidders found objectionable was deleted from the RFP in. order to enhance competition. Moreover, the Source Selection Official stated that test facilities were not a factor in judging the bidders.	<u>Response: Contract Issues - Allegation No. 10</u> The DoDIG Report's conclusion appears to hinge on the premise that factory testing and/or test facilities were not a factor in selecting a winning bidder. Nothing could be further from the truth. In order to meet the requirements of the contract, it was necessary for a successful bidder to provide full factory performance testing (dynamic testing) and hydrostatic testing (static testing) for all pump assemblies and drive units. The DoDIG report does not acknowledge the fact that full performance testing was required by the contract, not just a "nice thing to have" that was merely left in because the winning bidder put it in their bid proposal. It is imperative to review my MFR on "Factory Testing Requirements and Field Testing Requirements of the Pumping Equipment for Contract No. W912P8-06-C-0089." This MFR will make it very clear that dynamic testing and static testing were integral to the contract in question. Further, if DoDIG had done any research, they would have ascertained the following additional pieces of evidence I would like to bring to light, which relate directly to this allegation and which show appearance of impropriety with regards to how this contract was awarded. First: The ITR states the following: > The procurement for the emergency pumps was a source selection and three competitive offers were submitted. At the initial visit in September 2006, each of the offerors and their proprietary information was intact in the contract files. At the follow-up visit in April 07, only MWI's proposal was part of the contract files. The other two offerors were missing. The source selection board's recommendation for award and the basis of it to MWI was intact in the contract files. One of the noted technical approach strengths by the SSB for awarding to MWI was MWI's full scale test of all major components . . . > [C]ertain key elements of the solicitation process are missing from the contract files, namely: the emails notifying the offerors	APARIQ is unable to second guess the decisions of the proposal evaluators long after the bid proposal evaluations were completed. However, the integrity of the entire pre-solicitation efforts, the development of the statement of work, the development of the contract deliverable is suspect. Based upon the review of documents, APARIQ believes the solicitation for this pumping equipment violated the Federal Acquisition Regulations (FAR) Section 11.105 and most certainly cannot be justified under FAR Section 6.302-1. While, a belief might exist that the clauses for "Unusual and compelling urgency" were compelling to procure hydraulic pumps only, the fact that the proven direct drives pumps were procured, installed, and tested on-site in less time than the hydraulic pumps should cause a prudent manager to question the wisdom of allowing the solicitation to functionally select and develop requirement peculiar to one manufacture. For further discussion of this allegation please see Section 3.5.3 located on page 85.

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #10*** **(ACCORDING THE DODIG REPORT):** *ORIGINAL BIDDERS FOR THE CONTRACT WOULD NOT HAVE BEEN REJECTED IF THE REQUIREMENT FOR FACTORY LOAD TESTING THAT WAS SUBSEQUENTLY DELETED FROM THE CONTRACT HAD NOT BEEN IN THE REQUEST FOR PROPOSAL.*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	their weaknesses as alluded in the amendment and the documentation pertaining to the oral presentations conducted on 20 January 2006 (no meeting notes, no sign-in sheets confirming the participants, etc). At the follow-up visit, a videotape of the oral presentations was included in the contract files along with the selection panel's technical evaluations of each offeror. The written clarification on the offeror's weaknesses along with their written responses is still missing for 2 out of the 3 offerors from the contract files. . . . The ITR states clearly that, after a complete review of the source selection contract files, MWI's full-scale test of all major components was a noted technical strength in determining the contract award. In addition, the fact that key contract documents that delineate the offer's weaknesses (also providing where they met or were strong) is missing. This shows that the DoDIG relied on a verbal assurance of certain award/nonaward criteria--criteria that appear to change during different times of this pumping equipment contract. Next, the Audio tape of FPI's (one of the bidders) debriefing was made available to me and I have listened to it. It contains the verbal debriefing Dan Bradley and the CO had with FPI once they were informed that they had not won the bid. In this verbal debrief, Dan Bradley and the CO state clearly that the primary reason FPI was not awarded the contract was that their delivery schedule conflicted with regard to suppliers' letters of commitment, and FPI could not give the Corps uniform components (FPI offered diesel drives from two sources). FPI is heard to inform the CO that they could not offer a single source for the diesel drives because MWI had placed an order for a full complement of Diesel Drives from Caterpillar (apparently the only diesel drive manufacturer large enough to commit to supplying 37 diesel drives in a short period of time) prior to the bid presentations, thereby undermining the ability for another contractor to offer diesel drives and probably violating antitrust laws. Interestingly, a review of MWI's bid proposal shows that they were offering letters of commitment from 1) Rineer (the pump motor) for delivery of the 34 units with a 12-week lead time and 2) Caterpillar for the 37 diesel-drives, also with a 12-week lead time. Both of these components are critical path items; however, they are shown on	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #10*** **(ACCORDING THE DODIG REPORT):** *ORIGINAL BIDDERS FOR THE CONTRACT WOULD NOT HAVE BEEN REJECTED IF THE REQUIREMENT FOR FACTORY LOAD TESTING THAT WAS SUBSEQUENTLY DELETED FROM THE CONTRACT HAD NOT BEEN IN THE REQUEST FOR PROPOSAL.*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	MWI's bid proposal schedule as arriving on or before February 10, 2006. In addition, on MWI's bid proposal schedule, the completion of the installation of the Rineer motors is April 7, 2006, and the completion of the installation of the Caterpillar diesel drives is that same day. The actual delivery dates, if relying on the letters of commitment, would give the following actual start delivery dates (assuming no contractor risks a significant financial penalty by placing an order for components prior to contract award: Rineer: 12 weeks after award of contract (01/27/2006) yields 4/27/2006. Caterpillar: 12 weeks, therefore same start delivery date, 04/27/2006. There appears to be an almost (2 1/2 month delivery schedule conflict imbedded into MWI's bid proposal- and, for 2 of the most important hydraulic pumping equipment components. The Source Selection Panel appears not to hold MWI to the same criteria of delivery schedule conflicts that they imposed on FPL Without knowing what FPI's delivery schedule conflicts are, I would still characterize MWI's bid proposal as unacceptable due to the schedule bust and their bid proposal would have been ranked as such (I have extensive experience in this area as I have served on numerous Source Selection Panels contract values ranging from $10-50 million). Next, while I was in Vicksburg, Mississippi, to participate on an advisory board for the ITR, I was provided a copy of a report to J.P. Woodley, Jr., Assistant Secretary of the Army (ASA) entitled "Project Assessment for 17th Street, London Avenue, and Orleans Avenue Flood Control Pump Stations Project." The Scope of this report centers around the difficulties the pumping equipment was experiencing with regards to schedule delays from pumping equipment defects as well as other logistical problems. In this report, the author states the following: the commitment to the impeller foundry (critical path item) was issued on the 20th. The diesel engines were ordered in the 18th on (sic) January 20, (sic) MWI produced a project schedule timeline that showed shipment of	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #10*** **(ACCORDING THE DODIG REPORT):** *ORIGINAL BIDDERS FOR THE CONTRACT WOULD NOT HAVE BEEN REJECTED IF THE REQUIREMENT FOR FACTORY LOAD TESTING THAT WAS SUBSEQUENTLY DELETED FROM THE CONTRACT HAD NOT BEEN IN THE REQUEST FOR PROPOSAL.*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	the pump systems during April 12 to May 4.... It should be noted that MWI appears to have ordered the Caterpillar engines a week and a half before they were awarded the contract-a fact that was lamented by FPI when they were told a single source for diesel engines was an important factor when deciding award of the contract. I believe there exists a *prima facie* case for looking much closer into the award of the contract in question-at best, there is a definite appearance of impropriety. There is no evidence available to me in my work capacity, or publicly-available, to suggest otherwise.	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR **ALLEGATION #11** (ACCORDING THE DODIG REPORT): *THE COMPLAINTANT ALLEGED: "THE TASK FORCE GUARDIAN ACE [USACE] TEAM REFUSED TO HOLD THE CONTRACTOR RESPONSIBLE FOR PROVIDING ACCURATE AND TRUTHFUL QUALITY CONTROL DOCUMENTATION FOR PUMPING EQUIPMENT, AND REFUSED TO HOLD CONTRACTOR RESPONSIBLE FOR ENGAGING IN MISLEADING AND DECEPTIVE ACTIONS TO CONCEAL ACTUAL NUMBER AND NATURE OF FAILURES."*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
Facts: The contract required the contractor to provide test documentation as follows: The Contractor shall provide and maintain an inspection system acceptable to the Government covering the supplies, fabricating methods, and special tooling under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires. Documentation from the complaintant and from the Jacksonville shop inspection reports show problems and corrections at the factory that were not all recorded in the contractor's factory quality control reports. However, the USACE was informed of the problems and corrections were made to address pumping system problems. **Analysis:** The allegation was partially substantiated. The contractor's documentation did not include every problem and correction. However, the Jacksonville QC team also provided documentation and USACE took corrective actions when they became aware of the problems. We found insufficient evidence to conclude that the contractor engaged in deception to conceal equipment failures. We agree with the December 31, 2007, GAO report recommendation: Develop procedures to ensure that any contract related documentation, including that related to contract pricing, is completed and filed within a reasonable period of time.	**Response: Contract Issues - Allegation No. 11** The DoDIG report cites facts that are inaccurate and mischaracterizes the facts. **Actual Facts Regarding Inspection Requirements, Quality Control, and Quality Assurance:** It is imperative to review of my MFR - Acceptance Criteria, Inspection, and Warranty of the Pumping Equipment for Contract No. W912P8-06-C-0089. First, the contract required that the contractor fulfill their obligation to perform Inspection (QC). Specifically, with regards to QC, the contractor was obligated to comply with FAR 52.246-2 which provides for the following: • Provide & maintain inspection system acceptable to the government. • Keep records of inspection work available during contract performance. • Tender only supplies inspected in accordance with inspection system and found to be in conformity with contract requirements. • Prepare records evidencing all inspections made under the system. Second, any QA performed, or records the government was able to provide, is simply to help provide some assurance that the contractor has complied with the contract requirements-this is done by comparing the government's QA reports to the contractor's QC reports. On the whole, QA reports usually impart significantly less information regarding the quality of the work being done than QC reports (sometimes 10 to 100 times less). The government has one to two people watching only a small portion of the actual ongoing work, whereas the contractor has possible legions of employees that are part of the QC process. On the whole, the government usually chooses an aspect of the work that they are concerned about to observe (in our case, factory testing) or the government can do random spot checks '(or combinations ...). The whole purpose for government QA reports is to compare and	APARIQ believes this allegation valid. Before discussing the validity of this allegation in any technical depth, it the allegation included the statement, *"The complainant alleged: TFG ACE [USACE] team refused to hold the contractor responsible for providing accurate and truthful quality control documentation for pumping equipment, and refused to hold the contractor responsible for engaging in misleading and deceptive actions to conceal the actual number and nature of failures."* If MWI provided reliable equipment as required and all of the problems with the hydraulic pumps were corrected, then why would it be necessary to follow the recommendations in the "Permanent Enhancement of the ICS Facilities Final Report dated April 27, 2009", and remove the hydraulic pumps while leaving the direct drive pumps in place? APARIQ agrees completely with Complaintant's review comments about the Permanent Enhancement of the ICS Facilities Final Report dated April 27, 2009, as follows: *"Pumping capacity was investigated and modifications to the existing ICS were identified that would meet the pumping capacity associated with a 100 year storm event. The identified ICS facility modifications required were as follows:* • *Provide an additional 2,800 cfs of direct drive type pumps at the 17th Street Outfall Canal with associated piping with support structures.* • *Provide an additional 750 cfs of direct drive type pumps at the Orleans Avenue Outfall Canal with associated piping with support structures.* • *Provide an additional 2,100 cfs of direct drive type pumps at the London Avenue Outfall Canal with associated piping with support structures.* *Operation and maintenance issues were investigated and modifications to the existing ICS were identified that would extend the life of the ICS at all three outfall canals to a 50 year design life. The significant identified ICS facility modifications (higher dollar) required were as follows:*

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ALLEGATION #11 (ACCORDING THE DODIG REPORT): THE COMPLAINTANT ALLEGED: "THE TASK FORCE GUARDIAN ACE [USACE] TEAM REFUSED TO HOLD THE CONTRACTOR RESPONSIBLE FOR PROVIDING ACCURATE AND TRUTHFUL QUALITY CONTROL DOCUMENTATION FOR PUMPING EQUIPMENT, AND REFUSED TO HOLD CONTRACTOR RESPONSIBLE FOR ENGAGING IN MISLEADING AND DECEPTIVE ACTIONS TO CONCEAL ACTUAL NUMBER AND NATURE OF FAILURES."

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	contrast with the contractor's QC reports to assure the government that things are on track. The idea here is that the government cannot be expected to take over the QC function of the contractor. **To address specifics in the DoDIG Report:** In the DoDIG Report, the overall approach appears to be addressing the state of the QA/QC reports. The DoDIG Report seems to imply that USACE was informed of the missing and substandard QC provided by MWI and took action to have MWI submit proper QC reports in order for USACE to have some assurance that pumping system problems were being addressed. For such a scenario, nothing could be further from the truth. Subsequent to my repeated reporting of substandard, and complete omission of QC on MWI's part (all during April 2006), the CO issued a Unilateral Modification (P00005) on May 06, 2006, which ordered MWI to attend a meeting where QC would be discussed. Subsequent to that meeting, MWI turned in QC reports on May 10, 2006 to the TFG pump team. This appears to be where the DoDIG Report stops in their investigation and analysis. On **May 11, 2006**, I received an e-mail from Jim St. Germain with MWI's attached QC reports. Shortly after receipt of this e-mail I verbally informed Jim St. Germain that after cursory review, I found MWI's QC reports to be incomplete, full of false statements, and generally unsuitable. I also informed him that, due to the ongoing installation work (and my 14+ hour work days), unless he had another person to review and comment, there would be quite some time before any feedback could happen. No assistance was forthcoming, and on **June 04, 2006,** I submitted an e-mail where I reviewed and extensively documented for the TFG the reality of MWI's submitted QC reports as being nothing more than a collection of false representations and assertions. The following is an excerpt from the e-mail I sent to Jim St. Germain: Jim, After initial review of MWI's submitted QC data for Drive Units 8840 thru 8849 I find they are generally incomplete and do not address the numerous testing and component failures these	• *Remove all the hydraulic pumping Equipment from all three Outfall Canals and their associated piping and support structures.* • *Replace all the removed hydraulic pumps with direct drive type pumps and associated support structures.* • *Replace the existing knife gates with roller gates.* *The basis overall recommendation of the Report is that the hydraulic pumps, and all their associated components and their associated structures, be removed and replaced with more reliable direct drive pumps.* *The Report goes on to list specific deficiencies/problematic issues associated with/surrounding the hydraulic pumps:* • *The hydraulic pumps are in-efficient.* • *The hydraulic pumps are subject to corrosion and leakage.* • *The hydraulic pump cooling capacity is subject to maintenance problems related to biologic growth and floating material.* • *The distance between the hydraulic pump and the power units exceed the recommended distance per the manufacture – incredibly even though the manufacturer is responsible for the design of same (design a pumping system with the associated separation distances).* • *The hydraulic fluid pressure in the hydraulic pipe may exceed the allowable 3000 psi capacity of the pipe.* • *The hydraulic pumps pose excessive danger related to hydraulic oil spills.*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	Drive Units have experienced during their lifetime in the assembly thru testing process. As I discussed with MWI on numerous occasions, the most basic requirement that each Drive Unit and Pump Assembly have documented the various component failures and actions taken to remedy same appears to not have been followed by them . . . In addition, review of the QC data submitted by MWI for Drive Units 8850 thru 8873 reveal the same level of incompleteness... Email from Maria Garzino to Jim St. Germain June 04, 2006. In the body of this same email, I went on further to delineate specifics of what was missing. At no time after receipt of my analysis of MWI's submitted QC reports did the TFG pump team, or the CO, take action to remedy the incomplete, inaccurate, and missing QC data. Treating the documentation for the pumping systems as suitable, when it clearly was not, lent the false impression that all was well with the pumps. This created a very real problem. It appears that, since the government accepted MWI's false representations and false assertions made in their QC reports, and subsequently accepted the pumping equipment with no measures taken to correct or memorialize (by the CO) the false representations from MWI having to do with the actual history and condition of the pumping equipment, then there is a very good probability that these actions on the part of the *TFG* pump team have laid the burden for defective pumping equipment solely with the government. This represents gross mismanagement and a gross waste of public funds and should have been addressed by the DoDIG Report. In addition, the conclusion of the DoDIG Report-that QC reports can be filed after-the-fact (they still have not been addressed 2 years later), or not at all, with government QA reports used to substitute where deficiencies in QC reports is apparent-is not allowed by the contract requirements or Federal Regulations. No publicly available or internal documentation available to me as an engineer and contract administration specialist shows otherwise.	• *It is doubtful the hydraulic pumps can operate at lake levels resulting from a lake surge.* • *Physical model tests were performed on the 17th Street and London Avenue Pumping Stations and indicated that the performance of the pumping station intakes was un-acceptable. Recommend replacing all hydraulic pumps with direct drive pumps."* For further discussion of this allegation, please see Section 3.5.4 on page 88.

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ALLEGATION #12 (ACCORDING THE DODIG REPORT): THE USACE TEAM PERSONNEL REFUSED TO HOLD THE CONTRACTOR RESPONSIBLE FOR HYDRAULIC OIL WITH FOREIGN OBJECT CONTAMINATION (METAL SHAVINGS, ETC.), AND HYDRAULIC PIPE FLUSHING PROCEDURES THAT CAUSED HYDRAULIC OIL TO SOLIDIFY WITHIN THE HYDRAULIC SYSTEM.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
In the complaintant's October 13, 2006 Declaration the complaintant alleged: We have had issues of the hydraulic oil in the hydraulic system of the pumps in the field turning to a Jell-O (like Jell-O shots) consistency and requiring every part of every pumping equipment component to be flushed and refilled...during an inspection of the hydraulic reservoir there was discovered a large amount of hydraulic oil in the bottom that had turned to a Jell-O like consistency (4" thick slab about 1.5' x 4'). In addition, during the inspection of the Denison hydraulic pumps there was observed large number of pumps that had a jelly like substance throughout their internal workings. It was later discovered by our testing lab that the Jell-O like substance was caused by a reaction of calcium and water within the hydraulic oil. The calcium was introduced by the pickling compound used in the hydraulic piping provided by [...the contractor] and the water was present by virtue of the hydraulic system not being 100% contained [...the contractor's] own flushing procedure caused the pickling compound to be introduced to the hydraulic oil, and the subsequent introduction of water caused the reaction to occur. [...The contractor] stated during a meeting on this subject that they did not feel it necessary to rectify this problem and would not take measures to correct it. When I asked [...the contractor] if the jell-O like hydraulic oil met the specifications of the hydraulic oil required by the Denison hydraulic pump and Rineer motors, they did not answer. My understanding was the government was to bear the cost of flushing/cleaning/refilling all the hydraulic pumping systems because [...the contractor] refused to do so (a day before I left New Orleans three contracts were being awarded to outside contractors to perform the needed flushing/cleaning/refilling). This cost, and all associated costs, should be borne by [...the contractor]. **Facts:** The contract incorporated several FAR clauses by reference and stated: All supplies furnished under this contract will be free from defects in material or workmanship and will conform to all requirements of this contract.	<u>**Response: Contract Issues - Allegation No. 12**</u> The DoDIG Report provides a narrative that is severely flawed in its timeline of events and actual facts associated with these events. <u>The "actual" story and associated timeline:</u> The contract deliverables required MWI to "furnish the required length of black steel supply and return pipe and hydraulic hose to install and operate all furnished pumps and diesel engine drive units." Basically, MWI was to supply all the material necessary to construct the required high pressure hydraulic pipe, and each site closure structure contractor was simply responsible for fabricating (constructing) the entire length of hydraulic pipe and installing it on the hydraulic pipe support structures. MWI provided to each site closure structure contractor the required piping materials, and the pipe that was supplied was shipped with the usual pickling solution found in steel pipe. MWI was responsible for instructing each closure structure contractor how they wanted the pipe cleaned out before it was presented to them to make the final connections (connect the DUs and PAs to the hydraulic pipe) and then do their own flush and fill procedure (flush and fill all hydraulic lines with hydraulic fluid). MWI provided these pump procedures to the TFG pump team and a preparatory meeting was held with each site closure structure contractor with MWI in attendance to provide all direction and answer all questions. The site closure structure contractors followed the instructions given to them by MWI for air blowing the piping out. All three site closure structure contractors successfully performed this air blowing pipe cleaning (with MWI personnel either present or able to be present). At the conclusion of the air blow procedure, MWI inspected the pipes prior to their commencing with their flush and fill procedure. MWI developed and provided the TFG pump team their flushing and filling procedures prior to actually conducting them. These procedures were detailed and were also provided to the DoDIG investigation team. At both Orleans Avenue and London Avenue, these flush and fill procedures were carried out by MWI.	APARIQ believes this allegation valid. From many descriptions and pictures there a miles of piping that would have to be flushed in the hydraulic systems, in the event of hydraulic oil contamination. Black & Veatch calculated "there Four 3 inch and 2 smaller hydraulic lines connect the hydraulic motor to the hydraulic power unit. To power the .. MWI units ..., there is approximately 10 miles of hydraulic pipes and hoses with over half of these over the canal." For additional discussion of this allegation, please see Section 3.5.6 on page 96.

Comparison of DoDIG Report No. D-2008-TD-005 with Complaintant Responses for ***Allegation #12*** **(According the DoDIG Report):** *The USACE team personnel refused to hold the contractor responsible for hydraulic oil with foreign object contamination (metal shavings, etc.), and hydraulic pipe flushing procedures that caused hydraulic oil to solidify within the hydraulic system.*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
The contract stated that the contracting officer may require, by written notice, the prompt correction or replacement of any supplies. Even though the contract does not specifically mention hydraulic oil, the above clause applies to the hydraulic oil. Numerous impurities were noticed in the hydraulic system installed at the sites. The impurities were attributed to slag from welding operations and metal shavings from sawing and pipe cutting operations entering hydraulic pipes during the building of pipe racks by the on-site contractors. Additionally, a jelly like substance in the hydraulic fluid reservoirs, on the tank filters, and hydraulic pumps located at Orleans and London Avenue canals was observed. Testing of the filter indicated a high level of Calcium, Boron, and Silicon, which was believed to be the result of the oils used in the pickling process. Additionally, the suction strainers and hydraulic fluid reservoirs contained large amounts of metal particles. USACE personnel informed us that the hydraulic pump units were shipped to the New Orleans sites with hydraulic oil in the reservoirs. During installation of HPUs additional hydraulic fluid from a local supplier was added. When the two hydraulic fluids mixed, a jello like substance formed. An analysis of the hydraulic fluids revealed that the two hydraulic fluids had different consistencies. The contractor replaced the hydraulic fluid but insisted that the hydraulic system was clean and did not require further flushing and cleaning. The contract did not specify a specific procedure for flushing and cleaning the hydraulic pipes. Therefore, the USACE decided that long-term reliability would be best served by requiring a cleaning process that was not specified in the contract. In July 2006 two contract modifications were issued to implement new cleaning and flushing of hydraulic piping at the three installation sites. **Analysis:** The allegation was not substantiated. The USACE enforced contract provisions. The contractor replaced the contaminated hydraulic fluid that had turned into jell-O like substance but insisted that the hydraulic system was clean and did not require further flushing and cleaning. The USACE realized that the contract did not specify a specific procedure for flushing the hydraulic pipes. Therefore, USACE determined that for long term reliability the system required a more thorough cleaning to prevent metal particles and other impurities from getting into the	At the manufacturing facility, MWI filled the hydraulic oil reservoir on each DU with 200 gallons of hydraulic oil (the hydraulic reservoirs were shipped to New Orleans with a full hydraulic oil reservoir). At the site closure structures, when performing their flush and fill procedure, MWI supplied and introduced hydraulic oil that was a different brand than that used in their hydraulic reservoirs. When the two different types of hydraulic oil were mixed, and then came in contact with trace amounts of Calcium left on the inside of the pipe (from the pickling compound) and trace amounts of water (from condensation), an emulsion formed that later turned to a gelatinous consistency (very rubbery and bouncy). A lab test was conducted to identify this substance: From: Floyd Friloux [mailto: ffriloux@lubriport.coml Sent: Monday, July 24, 2006 1:38 PM To: Floyd Frilouxi Newman, Raymond C MVN Cc; Pereira, Albert D MVN; joyray130@charter.net Subject: Re: Filter problems at London Avenue Anticipated reaction confirmed by weekend study. Mixing of Mobil Excel and Texaco Rando hydraulic fluids and homogenizing in 2% deionized water leads to additive separation. Lab blends of the two oils and small amount of water were whipped into a creamy emulsion. One portion was placed in glass cylinder in 90C oven, another into a steel bomb charged with 15 atmospheres of oxygen. Calcium and phosphorus additives are found to precipitate in both conditions, slightly more in the oxygen bomb. A denser, more viscous liquid could be expected to form at bottom of hydraulic reservoir if contamination with small amount of water occurs in a system that contains the Mobil Excel mixed with some competitive product. bomb Excel Rando mix/top mix/bottom Bottom	

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
hydraulic pump units. The additional cleaning was accomplished through contract modifications at Government expense.	Metals in PPM calcium 40 1 8 291 340 phosphorus 538 295 400 900 938 **It cannot be stressed enough, MWI was in sole possession and had 100% control of the materials used, the flushing/cleaning procedures followed, and the results that ensued.** Next, in early **July 2006**, I was present for the meetings that took place to have the Jell-O like hydraulic oil removed from the *entire* hydraulic system, not just the reservoir (the Jell-O like hydraulic oil was found in the Denison hydraulic pumps and it was known to be in *all* parts of the hydraulic system). It was determined, prior to my leaving, that MWI was responsible for performing this work (as evidenced in a meeting I attended with MWI, ... Germain and Randy Persica, and follow-up emails). However, I was also present when the owner of MWI, David Eller, stated very clearly and emphatically (in this same meeting), that MWI was not about to perform the work as they felt it unnecessary and too expensive. I asked Mr. Eller if his hydraulic pumps and motors were specified to run on Jell-O like hydraulic oil. Mr. Eller did not answer me. By the time I left, I was told MWI was to perform the work. I assumed MWI was ordered by the CO, given their earlier refusal. I did not know the particulars: that they were being paid $683,000 to do the work that was already required to be done at no cost to the government. On **July 14, 2006** MWI sent an e-mail to Jim St. Germain, outlining MWI's "proposed procedure for conducting additional cleaning of the hydraulic tanks and lines." On **July 15, 2006** Jim St. Germain sent Col. Bedey an email stating the following: We have issues with the hydraulic fluid at London and Orleans. Test on metal particles found on the suction strainer show slag and metal shavings from the hydraulic piping. Additionally, we found a jelly like substance in the hydraulic fluid tank. Test on this fluid indicates that the substance is caused by a reaction of Calcium and water. The Calcium may have come from the oil in the pipe pickling process.	

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	Metal is residual from the pipe welding. Discussions with MWI have not gotten very far. They propose to clean the system the same way they clean it before (will provide details but not needed for this message). This problem is beyond their capacity and their solution will be to keep trying to clean the system as they did before. We have been in contact with two companies that are experienced in flushing hydraulic lines. They recommend procedures much more rigorous than those used by MWI. A third company is meeting with us Monday. These new procedures will cost about $100,000 per outfall canal and will take 12 days per canal. I want to move on these new procedures ASAP. I will draft a letter to MWI giving them 48 hours to develop a committee to a quality flushing procedure or turn it over to our construction contractors to perform and deduct it from their pay. Bottom line is this system is beyond MWIs capability, they need more motivation and I have no confidence in their ability to figure this problem out. MWI will continue with their flushing procedure tomorrow but after what I witnessed today, they are doing this on the cheap and with little insight. --Jim St. Germain On **July 16,2006** Col. Bedey replied to this email stating the following: Need you to personally engage Mr. Eller, the president of MWI - I met with him Friday. He needs to understand that we are not going to half-step this.... I fully agree with the team's approach - **either they perform or we will move out in a different direction**. Contracting/legal make sure we are straight in our direction. **TIME is of the essence in gaining reliable pumping capacity** •... COL Bedey On **July 20, 2006**, TFG issued a modification (Undefinitized - scheduled to be definitized in the next two weeks) to MWI to perform "new" flushing procedures at the 17'h Street Canal. In this modification, the CO states: **The method of flushing the hydraulic piping is being changed. The contract did not specify a specific procedure for flushing the hydraulic lines. The contractor's proposed method has produced a minimally acceptable clean fluid, but for long term reliability, the system requires a more thorough cleaning.**	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #12*** **(ACCORDING THE DODIG REPORT):** *THE USACE TEAM PERSONNEL REFUSED TO HOLD THE CONTRACTOR RESPONSIBLE FOR HYDRAULIC OIL WITH FOREIGN OBJECT CONTAMINATION (METAL SHAVINGS, ETC.), AND HYDRAULIC PIPE FLUSHING PROCEDURES THAT CAUSED HYDRAULIC OIL TO SOLIDIFY WITHIN THE HYDRAULIC SYSTEM.*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	This was a day or two after I left New Orleans to return home. On **July 21, 2006** TFG issued an identical modification to MWI to perform the same new procedures at London Avenue Canal and Orleans Avenue Canal. On **July 21,** 2006, MWI provided the TFG pump team their "cost proposal" for the "flushing procedures" for the 17th Street Canal. In the submitted "cost proposal" MWI asks for, and I later learned obtained (in reality, not in contract format), a time and materials contract. In other words, whatever cost escalation they expect they will experience, they pass along for reimbursement. In other words, all "risk" is passed to the government. On **July 21, 2006**, MWI issued a purchase order to the subcontractor that will perform the actual cleaning/flushing of the hydraulic system at the 17'h Street Canal (and subsequently for all three outfall canals). On **August 9, 2006,** MWI provided the TFG CO a "revised" cost estimate for the flushing at London Avenue Canal and Orleans Avenue Canal. On **September 5, 2006,** the subcontractor performing the cleaning/flushing instructed MWI that they the sub had completed all flushing of the hydraulic systems and, before they commenced refilling the hydraulic systems with filtered hydraulic oil, they needed additional compensation as their contract with MWI appears not to cover this aspect of "additional" work. On **September 5, 2006,** MWI responded to this subcontractor and informed the sub that MWI just spoke to the TFG CO, and, following her advice, MWI instructed the sub to wait for her to issue a modification to MWI to cover this portion of the work. On **November 6, 2006,** the HPO performed "technical analysis" of MWI's submitted invoices from August 7, 2006 through September 16, 2006 for a total amount of $188,000. Of note, this "technical analysis" is not in accordance with the Federal Acquisition Regulations (FAR). On **November 6, 2006** the HPO performed a "technical analysis" of MWI's submitted invoices (August 15, 2006, August 21, 2006, August 28, 2006 and September 17, 2006 for a total amount of $420,000. This "technical analysis" was also not in accordance with the Federal Acquisition Regulations (FAR).	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #12*** **(ACCORDING THE DODIG REPORT):** *THE USACE TEAM PERSONNEL REFUSED TO HOLD THE CONTRACTOR RESPONSIBLE FOR HYDRAULIC OIL WITH FOREIGN OBJECT CONTAMINATION (METAL SHAVINGS, ETC.), AND HYDRAULIC PIPE FLUSHING PROCEDURES THAT CAUSED HYDRAULIC OIL TO SOLIDIFY WITHIN THE HYDRAULIC SYSTEM.*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	On December 5, 2006 the TFG CO issued a definitization modification in the amount of $682,956.50 for the cleaning/flushing performed at all three outfall canals (17th Street Canal, Orleans Avenue, and London Avenue). Of important note, this modification does not contain an Independent Government Estimate, a Prenegotiation Objective - Business Clearance Memorandum (required for actions greater than $650,000), Cost or Pricing Data (also required for actions greater than $650,000), nor a Price Negotiation Memorandum. Even if this was a legitimate modification to MWI's contract, which it is not, there was no cost analysis or price analysis done for this very expensive contracting action. It should also be noted that the contract modification amount is simply a total of all the invoices submitted by MWI to the TFG pump team - there is no evidence that "negotiations" were conducted to verify and/or determine if the price adjustment was "fair and reasonable." If there had been negotiations, then surely hourly labor rates of $300.00 would have been addressed. I would assume- especially as "deductive" work calculated by MWI (a credit due to the government) used labor rates of $91.00 per hour. Additionally, included in the "submitted invoicing" were costs associated with delays due to MWI ($21,000), which the government also appears to have borne. However, it should be stressed that the issuance of this modification was an unnecessary action on the CO's part and constitutes fraud, waste and abuse on the part of the TFG pump team, as it provides for payment of work that was already covered by the original contract terms and conditions at no additional cost to the government. What becomes very clear from this chronology and compilation of fact statements is that the TFG pump team, with the support of the TFG CO, did not enforce the terms and conditions of MWI's contract, and effectively compensated MWI to remain at the site and perform the work that was required-a $683,000 compensation to perform work MWI was contractually-obligated to do in the first place at no additional cost to the government -and then issuing revisionist paperwork to cover up the true facts of what occurred. No documentation available to me as an engineer and contract administration specialist supports the conclusions of the DoDIG report. Nor does publicly-available evidence or evidence cited by DoDIG investigators. What is available points the other way.	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ALLEGATION #13 (ACCORDING THE DODIG REPORT):

THE HYDRAULIC PIPING SUPPLIED BY THE CONTRACTOR IS NOT IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
Facts: Sub-section 2.4 of the contract stated the hydraulic piping requirements as follows: Hydraulic lines connecting the power unit to the pumping unit shall be a combination of black steel pipe and reinforced hose and shall be installed in accordance with the drawings and as specified herein. Supply pipe shall be ASTM AI06, Schedule 80 seamless black steel pipe, and return pipes shall be ASTM AI06, Schedule 40 seamless black steel pipe... USACE representatives stated that the contractor supplied the pipes to the standards specified in the contract. The contract required pipe meeting American Society for Testing and Materials (ASTM) A106. ASTM A106 is a material properties specification which is verified by mill certifications. The properties identified in ASTM A106 are used in the formulas of the American Society of Mechanical Engineers (ASME) codes B31.1 and B3l.3 to determine the pipe size. However, the ITR stated, "The hydraulic piping does not meet the requirements of ASME B31.1..." and recommended, "...that a certified hydraulic systems inspector determine if the system is free of shock loading and certify that the system as built is safe to operate for the intended use." In response to the recommendation made in the ITR, USACE hired a professional engineer who performed an evaluation to determine the suitability of the hydraulic piping system design and construction. The consultant was advised by an ASME representative that code B31.3, not code B31.1, was the proper code for this application. Using the formulas found in ASME code B31.3 and the properties of ASTM A106 pipe, the consultant determined that the piping was in accordance with the appropriate industry standard. In addition, he tested the installed piping system at 1.5 times the design pressure (4500 psi) and observed no failure in piping and found the system working	**Response: Contract Issues - Allegation No. 13** The DoDIG Report fails to address my allegation and facts statement, and instead responds to a follow-on examination of this issue by the ITR-dismissing the ITR's findings by implying that they were invalidated because they were not doing calculations in accordance with ASME B31.3 process piping guide (the ITR used the ASME B31.1 power piping instead). For the record, **I did my calculations using ASME B31.3, DoDIG's preferred method.** It should also be noted that the site closure structure contract also states clearly: *"Section 15060-2. 'Piping installation shall be in accordance with ANSI B31.3'"* - as the closure structure contractors were responsible for manufacturing the pipe that MWI provided, this specification was enforced (and I followed it). It appears the DoDIG did not review the documents I gave them - my calculation sheet was included (attached in emails). For clarification, I'll cut-and-paste it here: **3" 'High' Pressure Pipe Design Sheet** **Calculations to determine appropriate pipe schedule (using t_{total}) for the high pressure side of the hydraulic pipe used in the pumping system:** Operating Pressure: 3000 psi Operating Temperature: 160 F Pipe Material Spec.: ASTM AI06 Pipe Size: 3" NPS	APARIQ believes this allegation is valid. In the ECM-GEC Joint Venture Report[51] dated 27 April 2007 the authors of that document clearly identified the following require coating protection against corrosion, "including the: ..., 2) hydraulic piping and pipe supports, 3) pump platform substructures, 4) discharge piping supports, 5) discharge piping internal surfaces, 6..." For further discussion of this allegation, please see Section 3.5.7 located on page 99.

[51] "Permanent Enhancement of the ICS Facilities, Final Report", dated **27 April 2009**, prepared under contract to USACE by ECM-GEC Joint Venture in association with Black & Veatch Special Projects Corp, page 3 as well as other locations in the report.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments

satisfactorily. The professional engineer concluded that the hydraulic piping system, design, and construction were suitable for transmitting power from the diesel engine to the vertical water pumps. Shock loading in the drive was not an issue. There were no rapid closing valves in the oil power system. Engineering calculations indicated that the pipe envelope did not present a safety hazard. In summary, the professional engineer found the existing hydraulic pipes adequate.

In addition, another consultant analyzed the adequacy of the ASTM A106. Schedule 80 black steel pipe used as hydraulic conduits for the pumps. He stated in his report:

Based on the above observations and ... [the contractor representative] email dated May 18,2006, we believe that the 3" diameter Sch. 80 seamless black steel pipe is adequate for the hydraulic conduits for the hydraulic pumps at the 17th Street Canal Interim Pump Station.

Analysis: The allegation was not substantiated. The hydraulic pipes supplied by the contractor met the contractual specifications and accepted industry standards. The ASME advised that the correct standard for this purpose was ASME B31.3.

Corrosion Allowance (CA):	0.125" **(required by B31.3)**

Design Pressure - for this calculation, design pressure is set to equal operating pressure this is not advisable, this is only being done to provide a "best" case scenario. Therefore, for this calculation, P = design pressure = operating pressure.

To find wall thickness:

From ASME B31.3-202, Chapter II, Design, Part 2, Pressure Design of Piping Components, Section 304, Pressure Design of Components, Paragraph 304.1, Straight Pipe, Sub Paragraph 304.1.2 Straight Pipe Under Internal Pressure:

t_{min} =	PD/(2 (SE+ PY)) (for t_{min} < D/6)
S = 16,000 psi	*Stress value for material* from Table A-I, Basic Allowable Stresses in Tension for Metals, ASTM B31.3 (16 ksi for this temperature range)
E= 1.0	*Quality factor* from Table A-I, Basic Allowable Stresses in Tension for Metals, ASTM B31.3 (seamless pipe)
D =3.5"	*Outside diameter of pipe*
Y= 0.4	*Coefficient* from Table 304.1.1 (valid for t < D/6) - temp < 900 F
	Therefore, t_{min} =0.3052326"
Add Corrosion Allowance (CA):	
t_{corr} =	t_{min} + CA = 0.3052326" + 0.125" = **0.430233"**
Adjust For Mill Tolerance:	
t_{total} =	t_{corr} /0.875 = 0.430233"/0.875 =

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	0.4917" Determine the appropriate Pipe Schedule from table: for 0.492" wall thickness, XX **Strong** (0.600") - (Schedule 160 = 0.438" wall thickness; Schedule 80 = 0.300 " ...) To further clarify, if we calculate we need a minimum 0.4917" wall thickness for our pipe, yet we used pipe (Schedule 80) that has a wall thickness of 0.300", this will not work well. Even a layperson can understand if you subject a high pressure pipe to pressures that greatly exceed its design capacity, it presents significant concerns for longevity and the lives and welfare of the people who are in and around the high pressure piping system when operations are under way - especially when our hydraulic pumping equipment experiences cavitations, vortexing, and shockwaves within the hydraulic piping system-which it has had a history of experiencing. Therefore, there is even more about which to worry. In addition, and of significant importance, USACE's high pressure hydraulic pipe was fabricated using the materials MWI provided - this resulted in the pipe being fabricated utilizing **socket weld fitting and welding.** Per the ASTM Code, **socket welds cannot be used for high pressure piping** (to determine if high pressure ASME B31.3 references ASTM B16.5 where high pressure equates to 2500 psi and over). USACE's pipe experiences were in excess of 3200 psi. Therefore, the hydraulic pipe as fabricated using the materials MWI provided violates the Code. The ITR's recommendations are similar to what I have asked for all along on this issue. My recommendations are as follows: Recommend that a certified hydraulic systems inspector, per ASME B31.3 Process Piping, inspect the piping system and certify that the hydraulic piping system is safe to operate for the intended use. The inspector may add operating requirements due to the reduced factor of safety. Any additional operating requirements must be included in the training of, and provided to any pump system operators. Finally, if in fact TFG found a registered or licensed Professional Engineer (P.E.) to certify that the hydraulic system is safe to operate for the intended use (a fit-for-service analysis), and this person came to the conclusions cited in the DoDIG Report, then this P.E.'s name, Professional License Number, the State(s) in which they are licensed,	

*COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR **ALLEGATION #13** (ACCORDING THE DODIG REPORT):*
THE HYDRAULIC PIPING SUPPLIED BY THE CONTRACTOR IS NOT IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS.

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	and their analysis with findings need to be forwarded to the respective **Engineering Licensing Board.** No available internal or external documentation supports the conclusions of the DoDIG report.	

*Comparison of DoDIG Report No. D-2008-TD-005 with Complaintant Responses for **Allegation #14** (According the **DoDIG Report**):*

The complaintant alleged: "...they [the contractor] referred to my mandated 100% presence for pump testing oversight by USACE QA [Quality Assurance] personnel, including full QA and photographic documentation of all ongoing pump equipment testing, to be excessive, unnecessary, and somehow detrimental to getting pumps delivered to the city of New Orleans."

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
Facts: The USACE representatives told us that the contract did not specify the extent of oversight during factory testing. The contract states: Full size factory testing shall be witnessed by the Government prior to shipment of the pumps. The contract also includes by reference FAR 52.246-2 which states: The Government has the right to inspect and test all supplies called for by the contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event before acceptance. The Government shall perform inspections and tests in a manner that will not unduly delay the work. The Government assumes no contractual obligation to perform any inspection and test for the benefit of the Contractor unless specifically set forth elsewhere in this contract. In response to the contractor's expressed concerns regarding the complaintant's oversight activities, USACE assessed the issue and included the following statement in a contract modification: Inspectors are to be notified of the initiation of test with enough time to travel between test sites and witness the beginning and ending of all tests, even if only one inspector is on duty at that time. **Analysis:** We confirmed that the contractor raised objections to the complaintant's rigorous oversight activities because the original contract intent was not clear regarding the extent to which Government representatives would be involved in pump testing. We concluded that USACE management reasonably attempted to balance the need for Government involvement in testing with the need to avoid the type of interference which could slow production. The USACE decision to modify the contract to require the Government representative to witness the beginning and end of each test was an acceptable approach.	**Response: Contract Issues - Allegation No. 14** This Allegation as presented in the DoDIG Report is an affront to me professionally. Ending the DoDIG Report on such a note is unfortunate. This "Allegation" was not an issue I ever brought forward for investigation. The quote they took from my submitted documents is nothing more than background information as to the conduct of MWI at that time and their unwillingness to cooperate and allow government oversight as the contract clearly states USACE had the right to do (contrary to what the DoDIG reports). It is like the sage brush covering the approach to the mountain, with the mountain being the object of focus. I can only conclude that I did not make the mountain big enough. I though bribery was a pretty big mountain, especially since it headlined as the opening and closing act of my second Declaration. The DoDIG Report is seriously flawed by a plethora of misleading statements. For instance, the contract for the pumping equipment clearly calls for government oversight of factory tests: 2.5.4 Full size factory testing shall be witnessed by the Government prior to shipment of the pumps. The need for government oversight was worded such that it was at the discretion of the government to do so, and it did. There is no ambiguity as the DoDIG Report implies if comprehensive factory testing is happening, then the government has the right to be there, period. The "extent" that is implied would be if the government *interfered* with the ongoing testing. I, along with the leader of the JAX QA team, never condoned or allowed any oversight activities by government personnel that violated Corps of Engineers QA oversight requirements. MWI was never delayed or impaired due to any government oversight activities. There is extensive documentation to prove this. Given the emergency nature of this procurement, it was imperative that problems/issues be "seen" and addressed at the earliest moment;	APARIQ believes this allegation valid. Undersized Durst hydraulic pump drives, excessive heating of Durst hydraulic pump drives, high GOCM amperage, and overheating of the GOCM should have led to required disassembly and inspection of the Durst drives and the GOCM to check for damage and evidence of metal particles; as well as the specification for the gear oil. High amperage on the GOCM is indication of stalling or binding that could have been caused by metal particles from the hydraulic pump drives. Over-torquing of gear teeth in the Durst hydraulic pump drives, can lead to gear fatigue, gear tooth flank pitting, and scuffing; all of which not only potentially reduce the integrity of the pump drives but cause contamination in the pump drives. If the standard oil was used instead of the required Mobile SHC 630 Synthetic or equivalent oil - or if the GOCM temperature exceeded the maximum allowable 250° F for synthetic oil (and 210° F for mineral oil), then the lubrication of the gears would have diminished and possibly contributed to pump drive surface gear damage. The only way to check and be sure about possible contamination levels in the gear oil, damage to the hydraulic pump drive gears, and internal damage to the GOCM is to disassemble several units and look. Short of disassembly or possibly filtering through an in-line 5 micron absolute filter, it is not possible to know if there was any gear wear or damage. Adequate corrective action should include root cause analysis, and not simply replacing a failed component (the symptom) with a new component, without understanding the root cause and making necessary improvements and changes to all of the systems. If MWI had followed National Electric Codes (NEC) for GOCM wiring size and anticipated voltage drops, the wires should not have overheated.

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #14*** **(ACCORDING THE DODIG REPORT):** *THE COMPLAINTANT ALLEGED: "...THEY [THE CONTRACTOR] REFERRED TO MY MANDATED 100% PRESENCE FOR PUMP TESTING OVERSIGHT BY USACE QA [QUALITY ASSURANCE] PERSONNEL, INCLUDING FULL QA AND PHOTOGRAPHIC DOCUMENTATION OF ALL ONGOING PUMP EQUIPMENT TESTING, TO BE EXCESSIVE, UNNECESSARY, AND SOMEHOW DETRIMENTAL TO GETTING PUMPS DELIVERED TO THE CITY OF NEW ORLEANS."*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	'accordingly, the government opted to be 100% present (in presence only, not in participation) to protect its interests as best it could. In addition, 100% government oversight of all factory testing was known by all parties (myself, the JAX QA crew, and MWI) to have been agreed to and signed off on by Jim St. Germain before any testing even began. Once testing began-the massive number of hydraulic component failures, the subsequent failure of MWI to meet their schedule, and the reality of MWI's efforts to delete and relax testing requirements in an effort to quicken the pace of anticipated delivery of the pumping equipment-became apparent. During this period, MWI also sought to have government personnel stop the practice of witnessing their ongoing testing - this was known by all parties and the issue was discussed in detail. Jim St. Germain provided assurances to myself and the leader of the JAX QA team that he had not changed his position on 100% government oversight even though we soon learned that Jim St. Germain was attempting to enlist the help of a junior engineer on the JAX QA team to institute government testing oversight more in line with what MWI was proposing. I followed and enforced contract testing requirements that were provided to me by my superior, Jim St. Germain. At no time did I ever act unilaterally or make decisions and carry them out without the concurrence and direction of either Jim St. Germain or Dan Bradley. *Every single time* there was question as to what new idea triggered testing requirements (whether promoted by the contractor, MWI, or others), I sought the direction of my superiors. *Every single time* I was given the direction I sought from my superiors, I followed that direction with absolute precision. I wish to communicate very strongly here, even when my own professional counsel to my superiors was contrary to the direction/orders they issued (which happened a great deal of the time), I always demonstrated the loyalty, dedication to service, and teamwork required by me as a USACE engineer, and always followed my orders to the letter. There is extensive documentation of this. I also will state for the record, there is no documentation that exists	

COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR ***ALLEGATION #14*** **(ACCORDING THE DODIG REPORT):** *THE COMPLAINTANT ALLEGED: "...THEY [THE CONTRACTOR] REFERRED TO MY MANDATED 100% PRESENCE FOR PUMP TESTING OVERSIGHT BY USACE QA [QUALITY ASSURANCE] PERSONNEL, INCLUDING FULL QA AND PHOTOGRAPHIC DOCUMENTATION OF ALL ONGOING PUMP EQUIPMENT TESTING, TO BE EXCESSIVE, UNNECESSARY, AND SOMEHOW DETRIMENTAL TO GETTING PUMPS DELIVERED TO THE CITY OF NEW ORLEANS."*

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	that shows I have been directed to act and have failed to do so, or have done so contrary to orders-all email, phone calls, and in-person conversations I have been party to with Jim St. Germain, Dan Bradley, and the CO will demonstrate this fact. Further, I want to correct the record on the following: The CO did not modify the contract to curtail my "rigorous oversight activities"-the contract was modified (early May, 2006) because MWI was implementing the practice of starting testing without notifying the government a test was about to begin - a practice we (myself and the USACE JAX QA Team Leader) asked the TFG pump team to help stop. This is documented by me and persons other than myself at the sight (USACE JAX QA). In fact here is an excerpt from the USACE JAX QA Team Leader's Shop Inspection Report #14, dated April 21,2006: Mr. Gary Allen came into the warehouse after a static pressure test had already begun on pump #4590. Mr. Allen was never notified that this pressure test was going to begin. He then contacted Ms. Gross to have her ask New Orleans whether these two units needed to be retested or not. New Orleans said that both pump #4587 and pump #4590 did not need to be retested, but that the Contractor must now give adequate notification and opportunity to the Government to witness ALL tests. [see e-mail from Dan Bradley stating such to the Contractor] The wording in the modification was to imply" a minimum requirement, not reset the boundaries as implied in the DoDIG Report. The DoDIG Report fails to mention where it obtained this statement they quoted. It came from my TFG-2 Declaration submitted in April 2007, in which I give a thorough account of the attempted bribery. The statement the DoDIG Report quotes was simply commentary on my part, not allegations of wrongdoing. It is interesting that nowhere does the DoDIG Report address the actual subject matter of the TFG-2 Declaration - bribery. DoDIG chooses instead to focus on an issue MWI tried to bring about, namely having me replaced by a lower-level	

*COMPARISON OF DODIG REPORT NO. D-2008-TD-005 WITH COMPLAINTANT RESPONSES FOR **ALLEGATION #14*** **(ACCORDING THE DODIG REPORT):**
THE COMPLAINTANT ALLEGED: "...THEY [THE CONTRACTOR] REFERRED TO MY MANDATED 100% PRESENCE FOR PUMP TESTING OVERSIGHT BY USACE QA [QUALITY ASSURANCE] PERSONNEL, INCLUDING FULL QA AND PHOTOGRAPHIC DOCUMENTATION OF ALL ONGOING PUMP EQUIPMENT TESTING, TO BE EXCESSIVE, UNNECESSARY, AND SOMEHOW DETRIMENTAL TO GETTING PUMPS DELIVERED TO THE CITY OF NEW ORLEANS."

According to the DoDIG Report No. D-2008-TD-005	Ms. Garzino Rebuttal of DoDIG Report No. D-2008-TD-005 Documented Position	APARIQ Related Comments
	USACE engineer MWI had wrapped around their finger (who was offered the bribe by the TFO pump team leader to "look the other way"-institute QA oversight that helped MWI get more pump equipment through the "testing phase," including no longer performing full government oversight - only observing when the contractor invited the government to do so). The DoDIG chose to spin this event in an attempt to impugn my conduct during this time. An interview with the head USACE Engineer in the field for the QA's (who was with me day and night everyday) can put to rest any doubts as to my conduct during this time. In fact, I would demand that occur now. Attempts to try and sully the conduct of the "complaintant", rather than address the real allegations, is a classic response to a "whistleblower", but not a sufficient investigatory response. No documentation available to me as an engineer and contract administration specialist supports the conclusions of the DoDIG report. Nor does publicly-available evidence. Nor does evidence cited by DoDIG investigators. In fact, the available documentation points the opposite way.	

5 JUSTIFICATION FOR DIFFERENT COMPARISON BETWEEN DODIG SUPPLEMENT REPORT BY PARSONS AND WHISTLEBLOWER COMMENTS

When Parsons prepared their "Independent Engineering Assessment of the New Orleans Temporary Outflow Canal Pumps", dated **27 February 2009**, under Contract No. GS-00F-0005R, Parsons Project No. 746558; Parsons did not directly address the allegations by Ms. Garzino detailed in OSC File No. DI-07-2724.

Therefore, APARIQ was not easily able to segregate the comments relative to allegations and make a comparison between the comments in the Supplemental Report with comments by Ms. Garzino relative to each allegation.

Ms. Garzino, the whistleblower responses on the following pages provides a reasonable comparison between findings in the report and her comments, and her document is included on the next pages for ease of reference.

6 RESPONSE BY MARIA GARZINO, TO: DODIG SUPPLEMENTAL REPORT PREPARED BY PARSONS WITH VALIDITY COMMENTS BY APARIQ

Please see the comments and comparisons beginning on the next page.

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons	APARIQ Comments on Validity
What follows is my response, to the Department of Defense Inspector General (DoDIG) Supplemental Report prepared by Parsons, entitled 'Independent Engineering Assessment of the New Orleans Temporary Outflow Canal Pump', Contract No. GS-00F-0005R, Parsons project No. 746558, dated February 27, 2009.	
This DoDIG Supplemental Report by Parson was ordered to be accomplished by the Secretary of Defense in response to the Office of Special Counsel's (OSC) conclusions that the DoDIG response to my allegations was superficial and dismissive. This response (submitted Supplemental Report) from the Secretary Defense is based in part on concurrence with OSC's findings that government cannot afford to take unnecessary risks with public safety due to faulty pumping equipment and lack of proper government oversight – that every effort must be made to assure the citizens of New Orleans that pumps designed for flood protection will perform as specified during hurricanes. To that end the Secretary of Defense ordered that Parsons determine whether the pumps were, in fact, adequately tested and to evaluate the likelihood that the pumps could be vulnerable to failure in the event of a hurricane.	
The resulting Supplementary Report by Parsons was transmitted to me by the OSC on April 02, 2009 for my review and response. A review of the intended general content of Parsons Supplementary Report (PSR) yielded it addressed two main assessments – Testing Adequacy Analysis and Vulnerability Analysis. Their Testing Adequacy analysis was broken down into three main areas; Factory Testing, Field Testing, and Laboratory Physical Sump Pump Model Testing. Their Vulnerability analysis was broken down into five main areas with an addendum addressing two hurricane events; Operational Vulnerabilities, Maintenance Vulnerabilities, Pump Capacity Analysis, Pump and Support System Analysis, and Performance During Hurricanes Gustav and Ike.	No comment
My response to the PSR will be organized in Sections as follows: 1. Summary Response: My overall summary response to the finding as presented in the Parson's Supplemental Report (PSR). 2. Point-By-Point Response to the PSR: A point-by-point response to the issues/ideas following as they are presented in the PSR. 3. Additional/Supplemental Rebuttal to the PSR: A detailed and documented supplementary rebuttal to the more prominent improper conclusions/findings as presented in the PSR, including presenting and citing attachments that demonstrate clear independent evidence the misrepresentations, false demonstrations, and blatant errors that constitute the basis of the findings as presented by the PSR. This rebuttal will address the following more prominent issues:	
3.1 Lack of Credible/Factual Acceptance Testing. Acceptance testing was not accomplished as reported forward by USACE, as reported in the DoDIG Report, and as subsequently reported in the subject PSR.	Comment of Complaintant to the Left is Valid
3.2 Hydraulic Pumping Equipment Failure Issues. Hydraulic pumping equipment failure issues have not been resolved – serious and potentially catastrophic vulnerability issues remain unaddressed. The following unresolved failure/potentially catastrophic vulnerability issues will be addressed:	Comment of Complaintant to the Left is Valid
3.2.1 Lack of Credible/Factual Acceptance testing – unable to credibly ascertain the mechanical integrity of the existing hydraulic pumping equipment.	Comment of Complaintant to the Left is Valid
3.2.2 Significant O-Ring/Seal failure issues – at the factory and subsequently extensively in the field, and, likely attributable to hydraulic system design deficiencies.	Comment of Complaintant to the Left is Valid
3.2.3 Hydraulic system design deficiencies/defects – including significantly undersized Durst pump drives and hydraulic oil reservoirs.	Comment of Complaintant to the Left is Valid
3.2.4 Significant Gear Oil Circulation Motor/Durst Drive failure issues – at the factory and subsequently in the field, and, also likely attributable to hydraulic system	Comment of Complaintant to

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons	APARIQ Comments on Validity
design deficiencies.	the Left is Valid
3.2.5 High pressure hydraulic pipe failure issues – piping not built in accordance to industry standards and ASTM code.	Comment of Complaintant to the Left is Valid
3.2.6 Excessive hydraulic system pressures and related hydraulic component failures	Comment of Complaintant to the Left is Valid
3.3. Hydraulic Pump Runs During Hurricanes Gustav and Ike. Hydraulic pump runs during Hurricanes Gustav and Ike were not as reported in the PSR – none of the pump run data reported in the PSR constitutes factual/truthful reporting. Actual hydraulic pumps run data provides and proves a plethora of contradictory conclusions to the PSR – including a prima facia case for official USACE reporting forward that constitutes an organized white wash intended to provide cover as to the true condition of the hydraulic pumping equipment. In addition, the PSR anchors its analysis and findings on the faulty premise the hydraulic pumping equipment was built for a design rainfall storm event of 10-years – the true/factual design storm event for the hydraulic pumping equipment, as reported to Congress and the public, is for a 100-year storm event (e.g. Hurricane Rita).	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
3.4. Authorized and Intended Lifespan of Pumping Equipment Installed at the Three Closure Structures. The PSR bases its plethora of various analyses on the faulty premise the hydraulic pumping equipment's useful life is between 5-7 years – they site a plan by USACE to abandon in place the newly built ½ Billion dollar closure structures with installed pumps and build an almost identical project (gated/permanent closure structure with installed pumps), at a cost of $800+M, a stones throw from the abandoned in place project (a few, maybe 100 yards further downstream). Official USACE documentation, including contract documentation, and, congressional actions defining and authorizing the project show clearly the hydraulic pumping equipment in question was authorized and procured with the intent of being able to operate successfully up to customary and usual industry standards for expected performance period of same , 50-years, not abandoned in place after 5-7 years. In addition, official USACE documentation, recorded statements in conjunction with official presentations made by leading TFH officials, and, congressional actions defining and authorizing the interim closure structures with installed pumps, clearly show the interim closure structures with installed pumps were intended to be **included** in any future follow-on project to increase the level of storm protection – not abandoned in place after 5-7 years. In compliance with the authorized project as presented to Congress, up to and including April 12, 2007, USACE proffered, through documentation and official testimony, the inclusion of the newly built structures into their planning process for any future follow-on projects to increase the level of storm protection – not abandon them in place after 5-7 years.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
3.5. Permanent Enhancement of the ICS Facilities Final Report dated April 27,2009. This Report, prepared for USACE, MVD, NOD by ECM-GEC Joint Venture, investigates and reports forward on what modifications are required to extend the life of the Interim Control Structures (ICS) at all three outfall canals to a 50 year design life. Amazingly this report recommends all the currently installed direct drive pumps remain and all the currently installed hydraulic pumps and their associated piping with support structures be removed and replaced with direct drive type pumps and associated structures. This Report goes on to state problematic operational and maintenance issues surrounding the hydraulic pumps are the main reason for recommending they be removed and replaced. This Report goes on further to recommend improving pumping capacity at all three outfall canals by adding direct drive type pumps to the existing ICS in order to meet the pumping capacity associated with a 100 year storm event.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
4. Conclusion.	No Comment
Appendix - Listing of Cited Documents and Attachments: As already provided, and/or to be provided, with the submission of this response.	

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 1 – Summary Response**	**APARIQ Comments on Validity**
The PSR concludes that my issues as have been brought forward have been resolved, the hydraulic pumps were successfully testing in the field, that there are no immediate vulnerabilities to catastrophic failure with the hydraulic pumping systems or their supporting systems, and that the hydraulic pumps were called into duty during Hurricane's Gustav and Ike in order to keep the city of New Orleans safe and performed successfully.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
In true summary fashion, my issues as have been brought forward have **not** been resolved, the hydraulic pumps were **not** successfully testing in the field, there **are** immediate viable vulnerabilities to catastrophic failure with the hydraulic pumping systems and/or their supporting systems, and the hydraulic pumps called into duty during Hurricane's Gustav and Ike, were **not** needed in order to keep the city of New Orleans safe, and did **not** performed successfully. However, I will elaborate a bit more...	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
<u>The issues I have brought forward have **not** been resolved.</u> Numerous observed and documented O-Ring/Seal failures (at the factory and later extensively in the field) have **not** been addressed nor resolved. Defective hydraulic system designs, including inappropriate/incompatible hydraulic components (e.g. undersized Durst pump drives), have **not** been addressed nor resolved. Voluminous numbers of malfunctioning Gear oil Circulation Motors (GOCM)/Durst drives (at the factory and extensively in the field) have not been addressed sufficiently nor resolved. The issue of excessive hydraulic system pressures and related hydraulic component failures have not been addressed sufficiently nor resolved. I also believe the issue of hydraulic piping supplied by the contractor not in accordance with accepted industry standards has not been sufficiently addressed and there still exists an unreasonably high risk of injury/death to operators as well as for catastrophic failure to the hydraulic pumping system.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
<u>The hydraulic pumps were **not** successfully testing in the field.</u> Acceptance testing has **not** been accomplished as has been reported in the PSR, and, there remains serious and potentially catastrophic vulnerability issues surrounding same as there has never been a means employed to assure the mechanical integrity of the demonstrated defective hydraulic pumping equipment. A comprehensive review of the official USACE acceptance testing documentation, including all Quality Acceptance Reports (QAR's) for same, reveals the findings as reported in the PSR, with regards to this testing, are at best untruthful, at worst fraudulent, if in fact a comprehensive review of all available acceptance testing documentation was accomplished by reasonably capable engineers.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
The acceptance testing the PSR contends happened in actual fact **never** took place. The acceptance testing data, as recorded by USACE Task Force Hope Quality Assurance (QA) personnel, shows that **none** of the hydraulic pumps were run at the official contractually agreed to (required) Acceptance Testing Procedures, and, **none** of the hydraulic pumping equipment system operating parameters were recorded as contractually required (time/pressure/speed/oil temp/water temp/canal level/leaks/ambient conditions). In fact, these official USACE Quality Assurance QA records for the Acceptance Testing cited in the PSR **prove** the assertions made in the PSR are false.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 1 – Summary Response**	**APARIQ Comments on Validity**
Incredibly, on the dates the hydraulic pump acceptance testing was reported as completed successfully, "passed" (as reported to, and by, the GAO, DoDIG and Parsons), the actual data recorded and reported by USACE QA field personnel for these same hydraulic pumps show the following was actually **officially** recorded for the 40 hydraulic pumps cited: • **8** of the 40 hydraulic pumps with no testing data recorded even though QA personnel were on site (at the outfall canal closure structures in question) and recording other work ongoing. • **2** of the 40 hydraulic pumps with no record of any testing done at all. • **12** of the 40 hydraulic pumps recorded as "ran" with no other testing data recorded (time/pressure/speed/oil temp/water temp/canal level/conditions/leaks). • **7** of the 40 hydraulic pumps recorded as running 2 hours with no other testing data recorded. • **5** of the 40 hydraulic pumps recorded as running 1.5 hours at with no other testing data recorded. • **1** of the 40 hydraulic pumps recorded as running 2 hours at reduced speed/pressure and no other testing data recorded. • **3** of the 40 hydraulic pumps recorded as failing the acceptance testing due to Durst Drive failures on the very day cited as "passing" same. A couple weeks later one of the pumps reported as "ran" for 2 hours with no other testing data recorded, another pump was retested and recorded as "passed" yet recorded hydraulic oil leaks and a GOCM that was not functioning properly, and no retest recorded for the other pump. • **1** of the 40 hydraulic pumps recorded as failing the acceptance testing due to an O-Ring failure on the very day cited as "passing" same with no retest recorded as completed. • **1** of the 40 hydraulic pumps recorded as failing the acceptance testing as it was in the by-pass mode – a couple weeks later recorded as retested and "passed" with no other testing data recorded.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
In addition, QA recorded data shows in the few days after certain handful of hydraulic pumps supposedly "passed" acceptance testing some were used again to assist with helping achieve 'prime' for other neighboring pumps still needing to undergo acceptance testing – 3 of these hydraulic pumps experienced catastrophic hydraulic pump failures; two experienced O-Ring failures and one experienced a seal failure. Of important note, no other subsequent acceptance retesting data is recorded for any of these hydraulic pumps.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
Also of important note, rainfall events as recorded by NOAA for the drainage basin associated with the three outfall canals for the entire acceptance testing period, provide physical evidence that pump acceptance testing runs, as cited in the PSR, were not possible (not enough water in the canals to run the hydraulic pumps as cited). It appears Parson has relied (like GAO and DoDIG?) on summary/executive summary/chronology documents given to them by New Orleans District (NOD) USACE Task Force Hope (TFH) instead of delving through the piles (and piles) of raw data.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 1 – Summary Response**	**APARIQ Comments on Validity**
Also troubling, reviewing the USACE acceptance testing documentation for each hydraulic pump, in conjunction with the vibration analysis that was done for a plethora of hydraulic pumps, along with related USACE QA reports, yields some very disturbing realities – as follows: • In the Jan.-Mar., 2007 timeframe, all 40 hydraulic pumps were retrofitted with stronger/more robust rebuilt Rineer motors, and proclaimed by USACE TFH to have been successfully tested and ready for service during hurricane season if needed. These same hydraulic pumps are subsequently run (in a limited fashion) and experienced what can be characterized as catastrophic failures if occurred during a Hurricane event; i.e. O-Ring/Seal failures, hydraulic component failures, Durst Drive/Gear Oil Circulation Motors overheating, severe vibrations/pulsations during runs, and failure requiring replacement of the Rineer motor. Even with the limited USACE documentation available, still able to document **15 of the 40** hydraulic pumps in this category (and some with multiple failures). • In the Mar. 2007 time frame, numerous hydraulic pumps undergo vibration analysis (13) and reported as concluding with positive/successful results. These same hydraulic pumps are subsequently run, in a limited fashion, with numerous pumps experiencing what can only be characterized as catastrophic failures; i.e. O-Ring/Seal failures, Durst pump drive not working properly, and hydraulic system close to overheating – there are even recorded pump runs where severe vibrations/pulsations are recorded. Again, even with the limited USACE documentation available still able to document **5 of the 13** hydraulic pumps in this category (and one with multiple failures). • In the Jun. – Sept. 2007 timeframe, all the hydraulic pumps undergo acceptance testing and are reported as "passing", testing being successfully accomplished. These same hydraulic pumps are run on the day of passing acceptance testing to only a couple weeks subsequent, with numerous pumps reported as experiencing what can only be characterized as catastrophic failures; O-Ring/Seal failures, Durst Drive/Gear Oil Circulation Motors overheating, severe vibrations/pulsations during runs, etc.. Again, even with the limited USACE documentation available still able to document **8 of the 40** hydraulic pumps in this category.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
The need for real/viable acceptance testing is still critical, it's imperative to insure the safety and welfare of the citizens of New Orleans. Without it there is no means to ensure the hydraulic pumps will function as they are required to by contract and design – that is, survive being operated at full operating pressures/speeds (to provide as close to the minimum required flow rate) during the design storm event (apparently, per the PSR, a 10-year, 24 hour rainfall event – not the design 100-year storm event reported to Congress and the public).	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
The nature and content of the official USACE hydraulic pump acceptance testing data, the nature an content of the official USACE summary/executive summary/chronology documents given to various federal investigatory agencies in the course of the various investigations, and the obvious efforts to promote false/untrue contentions in order to avert further questions regarding the operability/suitability of the hydraulic pumping equipment, is such it gives rise to serious questions about malfeasance. In summary, the hydraulic pumps were **not *successfully*** tested in the field.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
There **are** immediate vulnerabilities to catastrophic failure with the hydraulic pumping systems and/or their supporting systems.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
Contrary to the PSR, the existing potential vulnerabilities that could lead to catastrophic failure of the hydraulic pumping equipment are extensive; defective hydraulic system design, including inappropriate/incompatible hydraulic components (e.g. undersized Durst pump drives and hydraulic coil reservoirs), inability to assess the functionality of the installed hydraulic pumping equipment due to insufficient run times at appropriate speeds/pressures, unassessed cause for ongoing O-Ring/seal failures (in the factory and in the field), unassessed cause for numerous and extensive Durst drive failures ongoing in the field (likely due to undersized Durst pump drives), high pressure hydraulic piping not in conformance to Code and industry standards, etc..	

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 1 – Summary Response**	**APARIQ Comments on Validity**
The hydraulic pumps called into duty during Hurricane's Gustav and Ike, were **not** needed in order to keep the city of New Orleans safe, and did **not** performed successfully. The reported contention that the hydraulic pumps were called into duty during Hurricane's Gustav and Ike, in order to keep the city of New Orleans safe, and, performed successfully, mocks how this investigative process should work. In addition, none of the pump run data reported in the PSR constitutes factual/truthful reporting. The facts, and SACDA data, show storm surge as experienced at the gated closure structures, for hurricane Gustav **never** reached or exceeded the Safe Water Level (SWL) - had the gates never been closed for this event there would have been **no** adverse affect to the city of New Orleans from flooding.	
In addition, during hurricane Ike, the facts, and SACDA data, show storm surge as experienced at the 17th Street gated closure structures **never** reached or exceeded the Safe Water Level (SWL). Had the gates never been closed at 17th Street for this event there would have been **no** adverse affect to the city of New Orleans from flooding. And, during hurricane Ike, the facts and SCADA data show storm surge did reach the SWL at London Avenue (5.0') with a maximum surge water level of 5.39'. However, what is not reported in the PSR is during Hurricane Ike the hydraulic pumps were hardly run at all – they were relegated to 'exercise' type runs. At London Avenue, during hurricane Ike, it was the direct drive pumps that were utilized to initially bring canal water levels down, and it was direct drive pumps that were utilized to maintain these same water levels prior to any hydraulic pumps ever being turned on and operated. In fact, direct drive pumps were run over five (5) hours at London Avenue during hurricane Ike before a handful of hydraulic pumps were even turned on, and run at very limited speeds/pressures (between 30-70% of operating pressures/speeds), and for very limited periods of time (1 pump for one hour at reduced pressures/speeds, 2 pumps for 2.5 hours at reduced pressures/speeds, and 3 pumps for 45 minutes at reduced pressures/speeds).	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
After publically acknowledging USACE was severely limited in their ability to run hydraulic pumps for testing due to "insufficient water levels" in the outfall canals during anything but extremely heavy rainfall events (*not*, USACE was limited because of their own design flaw which leaves the hydraulic pumps 2' short of the intended pump-on elevation), USACE Task Force Hope personnel publically indicated all efforts would be made to run the hydraulic pumps during any future heavy rain events in order to give them more operational run time. Yet, for both Hurricane events, the facts, and data, show **none** of the hydraulic pumps were operated to initial bring canal water levels down at any of the outfall canals – when canal water elevations were the greatest - not one. Only Direct Drive pumps were initiated and operated to maintain and bring initial canal water levels down in all outfall canals. The hydraulic pumps were not utilized when the highest canal water levels were present in the beginning, were not allowed to run at full operating speeds/pressures, nor allowed to run for extended periods of time - they were instead relegated to an "also pumped" status that was turned into a straw man for hydraulic pump performance. The recorded storm data shows clearly the hydraulic pump runs were not examples of pumping performance that replicates that as seen in a true Hurricane event, they are examples of what can be called "demonstration"/"exercise" runs.	

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 1 – Summary Response**	**APARIQ Comments on Validity**
To demonstrate for Hurricane Gustav, only after the Direct Drive pumps were initially operated and the water level was significantly reduced at London Ave. outfall canal (4.3-3.3'), and the Direct Drives proved themselves to be capable and efficient (1' drop in 30 min.), were hydraulic pumps then turned on and operated in a limited fashion. And, at 17th St. outfall canal, only after the Direct Drive pumps were initially operated on two separate occasions over what appears to be a 5.5 hr period were the hydraulic pumps then turned on and then operated in a limited fashion. To demonstrate for Hurricane Ike, only after the Drive pumps were initially operated and the water level was significantly reduced at 17th Street outfall canal (5.2-2.9'), and the Direct Drives proved themselves to be capable and efficient (1.7' drop in 1 hour), were hydraulic pumps then operated in a limited fashion. And, at London Ave. outfall canal, only until the Direct Drives were operated for over 5 hours (once for an hour, and again for four (4) straight) were the hydraulic pumps then operated in their limited fashion. For Hurricane Gustav, the hydraulic pumps were run intermittently and on an extremely limited basis. At the 17th Street outfall canal, the 18 hydraulic pumps were only run, on average for each hydraulic pump run for the entire storm event, 3¾ hours each total, and incredibly, 30% of the run time was in the 20-65% operating speed range, 50% of the run time was in the 70-85% operating speed range, and 20% of the run time was in the 90-95% operating speed range. At the London outfall canal, the 12 hydraulic pumps were only run, on average for each hydraulic pump run for the entire storm event, 7 2/3 hours each total, and more incredibly, 44% of the run time was in the 20-65% operating speed range, 55% of the run time was in the 70-85% operating range, and statistically, only 1% of the run time was in the 90-95% operating range. For Hurricane Ike, the hydraulic pumps runs were even more severely restricted. At 17th Street outfall canal six (6) of the 18 hydraulic pumps were not even run. The remaining 12 hydraulic pumps were only run, on average for each hydraulic pump run for the entire storm event, 2 hours each total, and incredibly, 30% of the run time was in the 55-65% operating pressure range, 35% of the run time was in the 70-85% operating pressure range, and 35% of the run time was in the 90-95% operating pressure range. At the London Avenue outfall canal one (1) of the 12 hydraulic pumps was not even run. The remaining 11 hydraulic were only run, on average for each hydraulic pump run for the entire storm event, 1 ½ hours each total, and more incredibly, 65% of the run time was in the 20-65% operating pressure range, and 35% of the run time was in the 70-75% operating pressure range. To contrast, the eight (8) Direct Drive pumps at London outfall canal were run, on average for each direct drive pump run for the entire storm event, over 4 times longer than that of the hydraulic pumps.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
For both Hurricane events, the Direct Drive pumps were the workhorses with regards to what pumps did the lion's share of the pumping during both hurricane events – the hydraulic pump runs can be categorized as extremely limited and more in kind to exercise/demonstration level pump runs. Also, to put in further context, this even though there was a limited amount of pumping available during both Hurricane events.	
Even more importantly, the actual pump run data reveals that TFH and NOD did not have good faith the hydraulic pumps would operate as required. This is evidenced by the nature of how the hydraulic pumps were operated, by executing exercise/demonstration level pump runs, coupled with not operating a single hydraulic pump to initially bring canal water levels down at both outfall canals during both Hurricane events. Only Direct Drive pumps were initiated and operated when it was necessary to start pumping once the gates were closed. TFH & NOD had the opportunity to finally be able to run more than one or two hydraulic pumps at design level conditions (full operating speeds/pressures) for more extended periods of time – something they were previously unable to do due to previously insufficient canal water levels – something they previously publically stated they would seek to do (to overcome "insufficient water levels" issues - due to the Corps pump-on elevation design flaw). They purposely chose to not to do this...and instead chose to run hydraulic pumps at canal levels that severely limited their operational capability and endangered their mechanical integrity due to pumping at less than design pump-on water elevations.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 1 – Summary Response**	APARIQ Comments on Validity
Additional documentation will show clearly that high level USACE TFH personnel attempted to report patently false performance evaluations for the hydraulic pumps during Hurricane Gustav to the highest USACE command levels - official reporting forward that constitutes an organized white wash intended to provide cover as to the true condition of the hydraulic pumping equipment.	No comment
Finally, and incredibly, the PSR makes the argument for and incorporates throughout its analysis, regarding the suitability of the equipment in question, two (2) false premises that leave the undersigned almost speechless – they are as follows:	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
• Our hydraulic pumping equipment was designed for a 10-year, 24 hour rainfall, storm event, ergo, any analysis the PSR reports will incorporate this lessened design storm event.	
• Our hydraulic pumping equipment was only meant to have a limited/shortened lifespan of 5-7 years, not the industry standard for similar hydraulic pumping equipment (50 years) – ergo, any analysis the PSR reports will incorporate this shortened lifespan.	
As will be discussed in detail further on, the hydraulic pumping equipment in question was designed for a 100-year storm event. This has been documented extensively, including reported officially to Congress, and, reported extensively to the public.	No comment
As has already been mentioned previous, and will be discussed in detail further on, the hydraulic pumping equipment in question was procured with the intent of being able to operate successfully for a minimum 50-year period. This too has been documented and even recorded during a public meeting between the TFH Commander and various New Orleans officials.	No comment
The attempt of the PRS to base findings on such faulty premises paints these findings with no credibility In addition, this attempt on Parsons part to camouflage the failings and vulnerabilities of the object of their focus is an affront, and I believe a miscarriage of their duties as engineers. As engineers they are duty bound to ultimately use their expertise in service to the citizens their work will affect – not the self interests of the persons/entities paying for their engineer service.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
After a thorough review, the PSR can only be defined as a document completely without credibility. It's findings are not based on an analysis of the facts as they exist(ed) nor any real rigorous engineering and mathematical interpretation, and, can be refuted with a plethora of documentation to the contrary that can effectively demonstrate egregious untrue statements in fact, false demonstrations, blatant errors, mischaracterizations, and omissions of significant scale.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	**APARIQ Comments on Validity**
In an attempt to maintain clear and easy to follow responses in this Section I will provide my responses to specific issues as they are presented in the PSR. In addition, when responding I will reference first that portion of the PRS and enclose same in a box outlining same – this in order to ensure the reader is clear what portion of the Response in this Section is directly taken from the PSR.	No Comment
PSR: ES-1 to ES-3 **Executive Summary**	
For opinions as generally presented by Parsons in this Section, as might be obvious, my response is in direct conflict to theirs and is as that presented in Section 1. – "Summary Response".	
PSR: ES-1 **Executive Summary...**	
...Approximately 16,600 cubic feet per second (cfs) (7.5 million gallons per minute [gpm]) in pumping capacity was designed, procured, constructed, and tested in approximately 21 months.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
The pumping capacity numbers reported by the PSR are incorrect – 20 rental hydraulic pumps are included in this total. See Table 1-1 of the PSR. Total pumping capacity, as designed, procured, constructed and tested is somewhere around 14,500 cfs (using 200 cfs per hydraulic pump), and, 4,500 cfs of this is attributable to the direct drive pumps.	
PSR: ES-2	
Executive Summary... ...Once the MWI factory visit was completed, the USACE Jacksonville District Quality Assurance (QA) team was interviewed to obtain their first hand observations during the hydraulic pump fabrication and testing. The QA team substantially confirmed the observations documented in the DoDIG and GAO reports.	No Comment
Just what observations and portions (all?) of the cited DoDIG and GAO reports are the USACE Jacksonville	APARIQ cannot comment on

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
District QA team supposedly confirming? The QA team did not have exposure nor substantial involvement in the bulk of the issues brought forward for investigation through the efforts of these cites investigations and subsequent reports – this appears to be an attempt to paint with a broad brush concurrence from outside sources as lending credence....where none exists. From my personal first hand experience it is my strong belief the lead engineer from the USACE Jacksonville District in charge of all QA for this project would not agree with this statement made by Parsons.	the validity of this statement
PSR: ES-2 ; **Executive Summary...** ...The findings and conclusions of the Parsons team are as follows: ...Based on the information provided and the interviews performed, the Parsons team found that there were issues with the factory testing and changes to testing procedures by USACE that took place during the testing process. Further investigations also show issues raised by the whistleblower have been rectified in the field and the pumps re-tested for full functionality. Therefore, it is the Parsons team's opinion that the hydraulic pump systems have been adequately tested for their intended purpose.	Parsons Report is Misleading & Partially Incorrect
Issues I have raised have NOT been rectified in the field nor the pumps "re-tested" in the field for full functionality (acceptance testing). Further detailed rebuttal to this issue is provided in Section 3. – "Additional/Supplemental Rebuttal to the PSR"	Comment of Complaintant to the Left is Valid
In addition, the statement the PSR makes with regards to changes to the testing procedure is misleading and mischaracterizes my original issue regarding inappropriate relaxing of the factory testing requirements – please see original Affidavit and original Response to DoDIG Report for a detailed discussion regarding same. USACE allowed changes to the factory testing procedures (10 times) that were promulgated by repeated failures of the hydraulic pump manufacturer to meet the contractually required factory testing requirements – ergo, lessen the requirements until more pumps could "pass" the relaxed factory testing requirements. This bargain is the leading factor in defective hydraulic pumping equipment being delivered to New Orleans. Also of important note, this bargain is the reason none of the completed hydraulic pumping systems has ever been able to be run at full contractual operating speeds/pressures, and, even when run at lesser speeds/pressures none of the hydraulic pumping equipment has been able to sustain any significant run time, mainly due to the USACE design flaw that leaves the hydraulic pumps at least 2' short in the required design submergence (there is not enough water in the outfall canals to run the hydraulic pumps for any meaningful length of time with without serious risk to the hydraulic systems).	Parsons Report is Misleading & Partially Incorrect
This issue has been extensively discussed by me in numerous submitted documents (MFR - Factory & Field Testing & Docs , original Affidavit, supplemental Affidavit, and original Response to DoDIG Report. In addition further detailed rebuttal to this issue is provided in Section 3. - "Additional/Supplemental Rebuttal to the PSR".	No comment

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
PSR: ES-3 **Executive Summary...** ...The findings and conclusions of the Parsons team are as follows: ....It is the opinion of the Parsons team that as long as the permanent facilities proceed according to schedule and a thorough inspection and maintenance program is followed for the temporary facilities, there are no immediate vulnerabilities to catastrophic failures with the hydraulic pumping systems or their supporting systems.	This is an invalid statement from the Parsons Report
The potential vulnerability to catastrophic failure of the hydraulic pumping equipment is NOT limited to these two identified issues. The actual potential vulnerabilities that could lead to catastrophic failure of the hydraulic pumping equipment is extensive – defective hydraulic system design, inability to assess the functionality of the installed hydraulic pumping equipment due to insufficient run times at appropriate speeds/pressures, incompatible hydraulic components, unassessed cause for ongoing O-Ring/seal failures (in the factory and in the field), unassessed cause for numerous and extensive Durst drive failures (ongoing in the field), etc.. Further detailed rebuttal to this issue is provided in Section 3 – "Additional/Supplemental Rebuttal to the PSR"	Comment of Complaintant to the Left is Valid
PSR: ES-3 **Executive Summary...** ...The findings and conclusions of the Parsons team are as follows: ...On August 31, 2008, Hurricane Gustav made land fall... ...which generated a storm surge in Lake Pontchartrain of 4.8 feet. Records show that the USACE canal teams received orders to close the canal gates at the temporary outflow canal pump stations at the 17th Street and London Avenue canals, cutting off the canals outflow to Lake Pontchartrain in anticipation of the storm surge associated with the high winds. Pumps were put into service and the two canals were successfully kept at the safe water levels. The Orleans Avenue gates were not shut as the water levels were at a safe level... ...On the morning of September 12, 2008, Hurricane Ike made land fall...	Parsons Report is Misleading & Partially Incorrect
...generating a storm surge in Lake Pontchartrain of approximately 5.2 feet. The coast experienced rain and winds of around 25 mph and at the temporary pump stations, the USACE canal team received orders to close the canal gates cutting off the canals' outflow to Lake Pontchartrain. Again pumps were put into service and the two canals were successfully kept at the safe water levels. The Orleans Avenue gates were not shut as the water levels were below its designated safe level.... ...It is the opinion of the Parsons team that the temporary hydraulic pumping systems performed successfully, keeping the water levels of the canals at the determined safe level for both hurricanes.	Parsons Report is Misleading & Partially Incorrect
The SACDA data, as provided by USACE for this event, proves Hurricane Gustav posed little to no danger to the city of new Orleans (from flooding) with its reported maximum outfall canal surge of only 4.71' reported at the London Ave. ICS Lake Side Level, and 2.45' at 17th St. Lake Side Level. Official USACE "Protocol" called for gate closure and pumps operational if surge was expected to equal or exceed outfall canal safe water level (SWL); Orleans Ave. SWL = 8', 17th Street SWL = 6', and London Ave. SWL = 5'. The only outfall canal that even approached the need of any pumping capacity was Orleans	Comment of Complaintant to

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
Avenue, even if it was marginal at best. Pump run SCADA data for London Avenue and 17th Street outfall canals confirms this. If gates did not close, and no hydraulic pumps ran at any of the three outfall canals during Hurricane Gustav the city of New Orleans would not have experienced any adverse affects. This rebuttal is further detailed in Section 3 – "Additional/Supplemental Rebuttal to the PSR".	the Left is Valid
In addition, the SACDA data, as provided by USACE for Hurricane Ike proves this event posed little to no danger to the city of New Orleans (from flooding) with its reported maximum outfall canal surge. The Maximum surge experienced at the Lake Side of 17th Street during Ike was 3.66' – if the gates had never been closed this would have been the maximum canal water level experienced at 17th St.	Comment of Complaintant to the Left is Valid
And, again, during hurricane Ike, the facts and SCADA data show storm surge did reach the SWL at London Avenue (5.0') with a maximum surge water level of 5.39'. However, what is not reported in the PSR is during Hurricane Ike the hydraulic pumps were hardly run at all – they were relegated to 'exercise' type runs. At London Avenue, during hurricane Ike, it was the direct drive pumps that were utilized to initially bring canal water levels down, and it was direct drive pumps that were utilized to maintain these same water levels prior to any hydraulic pumps ever being turned on and operated. In fact, direct drive pumps were run over five (5) hours at London Avenue during hurricane Ike before a handful of hydraulic pumps were even turned on, and run at very limited speeds/pressures (between 30-70% of operating pressures/speeds), and for very limited periods of time (1 pump for one hour at reduced pressures/speeds, 2 pumps for 2.5 hours at reduced pressures/speeds, and 3 pumps for 45 minutes at reduced pressures/speeds).	Comment of Complaintant to the Left is Valid
This rebuttal is further detailed in Section 3 – "Additional/Supplemental Rebuttal to the PSR", 3.3 "Hydraulic Pump Runs During Hurricanes Gustav and Ike".	Comment of Complaintant to the Left is Valid
As discussed previously in Section 1 – "Summary Response" – the hydraulic pumps run performance, for both hurricane events, cannot be considered successful – successful here in this context would mean the hydraulic pumps were tested/run under real Hurricane flooding conditions, at full operating speeds/pressures for continuous and extended periods of time. Nothing of this sort was even remotely realized for the hydraulic pumps in question. This rebuttal is further detailed in Section 3 – "Additional/Supplemental Rebuttal to the PSR".	Comment of Complaintant to the Left is Valid
PSR: 1-2 **Section 1 – Introduction** 1.1 Background...	No Comment

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	**APARIQ Comments on Validity**
1.2 Scope ... The overall objectives of the assessment are to review the adequacy of testing of the temporary pumping systems and to identify and assess vulnerabilities of the hydraulic pumping systems to failures in the event of a hurricane (specifically a 10-year, 24-hour rainfall event to which USACE designed the systems)....	Comment of Complaintant to the Left is Valid &
It appears the PSR bases its analysis/assessments on a fundamentally faulty premise (by which they measured thing by). The design rainfall event is **not** a 10-year 24 hour rainfall event. Per USACE's own formal/official reports to various federal entities, and voluminous public statements, the interim closure structures with hydraulic pumps installed was designed to provide a 100-year level of protection – this is a level of protection equivalent to Hurricane Rita (comparing, Katrina was a 396 year storm).	Parsons Report is Misleading & Partially Incorrect
PSR: 2-3 to 2-4 2.4 Factory Testing.... ...Typically, these types of tests are not witnessed by the purchaser as they are identified and resolved by the fabricator before the inspection effort. Furthermore, witnessed events are typically limited to the startup and commissioning of a pump station except in cases where the specifications require witnessed pump and driver testing events.	Parsons Report is Misleading & Partially Incorrect
2.4.1 Factory Testing of the Hydraulic Pumping Units ...The testing program originally called for each unit to be tested statically for 90 minutes at design pressure and dynamically for 15 minutes at maximum speed, pressure, and temperature. ...As documented in other reports, some component failures occurred during the factory tests. The subject components were repaired or replaced and tests resumed. Recognizing the critical schedule constraints to have the pumps on site, ready to operate ? ? test and logged 25 running hours.	Parsons Report is Misleading & Partially Incorrect
2.4.1.1 Findings While there are standards related to the hydraulic performance of pumps of this type, ? ? additional field testing to ensure pump operation and endurance.	Comment of Complaintant to the Left is Valid &
For this procurement, nothing could be further from the truth. This was an emergency procurement where all hydraulic pumps arriving at the job site in New Orleans were required to be installed, commissioned and ready for service should a Hurricane be approaching the city. This was not a procurement done under "normal" conditions where extensive/laborious field testing was provided for. The contract requirements for this project, as provided for in the awarded contract, specifically provided for factory testing to be witnessed by the government and allowed for testing at the factory that would ensure each hydraulic pump would be run at full operating speeds/pressures for significant amounts of time that would ensure the mechanical integrity of the hydraulic pumping equipment.	Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
Next, the statement the testing program originally called for each pump to be tested dynamically for 15 minutes at maximum speed, pressure, and temperature is an incomplete one, and, left on it's own misrepresents the actual dynamic testing required by the contract, thereby misleading the reader. The original factory dynamic testing specified by the contract called for a dynamic test **conducted in a horizontal variable speed dynamometer**, capable of varying torque loads from 0 to maximum required horsepower as specified while running the hydraulic pumps at maximum operating speeds, pressures and temperatures (and, in accordance with HI Standards for type of dynamic testing specified). What is not stated here is the Contractor (MWI) did not have a variable speed dynamometer and asked the Corps for a variance – put the pumps into a testing tank and run the pumps over the operating range to simulate loading the hydraulic pumping system (in lieu of loading accomplished by the dynamometer). Also of note, USACE granted this request, but did so with the understanding all testing would continue to be done in accordance with HI Standards. By the very act of the contractor changing the loading mechanism this by definition was destined to increase the dynamic testing time as the loading of the pumps was no longer easily accomplished – again, due solely to the actions of MWI and USACE's concurrence with same.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
Next, components failures, occurring at the factory and during the factory Tests, where **not** repaired or replaced and tests resumed. Using just one example, over 40% of the Denison hydraulic pumps were shipped from the factory and installed in the field, all while being touted as in perfect condition, but later found to be in such a state of failure that they required immediate replacement (shredded port plates, scoured cams, etc.). Please refer to my Declaration, my Affidavit, and my response to the first DoDIG report. For a complete and thorough discussion of all this subject matter please refer to the following document: "MEMORANDI FOR RECORD - Factory Testing Requirements and Field Testing Requirements of the Pumping Equipment as Provided For by Contract No. W912P8-06-C-0089:" Next, the PSR characterization of the factory testing accomplished is such it completely rewrites history. Only 10 of the original Pump Assemblies was ever put in the testing tank to pump water, one was only run 1 couple minutes, and another run at 1/3 speeds/pressures (hydraulic coil did not even warm enough to register). Of these 10 pump assemblies ½ experienced catastrophic failures. There were additional test failures due to; a dozen of more Denison hydraulic pump failures; and ½ dozen or more high pressure hydraulic line failures, gear oil circulation motor failures, and loss of pressure/excessive hydraulic oil temperatures. That's only what is known, not what actually occurred.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
There is no record of two DUs (not one as reported in the PSR) passing any form of testing (even the lessened version). In addition, these units, DU 8840 and DU 8852, were installed in the field and there is no record of either being run successfully or recorded as passing acceptance testing. The only field run records show a plethora of various hydraulic system failures when trying to run pumps with these drive units. The PSR attempts to justify a backing away from the required testing requirements and rewrites what those actual requirements should be. The fact remains our contract called for specific testing requirements that were a deliverable – we paid top dollar for it. Please refer to the above cited MRF, my original Declaration and Affidavit for an in depth discussion on this mater. None of the abnormalities experienced during the factory testing was addressed – even the changed out GOCM change out did not solve the Durst Drive overheating problem as first thought (USACE field records prove this). And finally, there was no additional field testing accomplished that took the place of the lessened testing done at the factory – it couldn't have happened unless a storm was present (not enough water in the canals to run pumps for any meaningful time period due to the USACE design flaw). And, as will be shown later, this testing did not even happen during the subsequent two storm events (as the SCADA data will demonstrate).	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
PSR: 2-4 to 2-8 **2.4.2 Factory Prototype Performance Test** All **2.4.3 Factory Scaled Model Test** All	No Comment
I have no comment.	
PSR: 2-8	
2.4.4 Hydrostatic Tests The water pump units were tested hydrostatically for 90 minutes to check for leaks. The process included raising the pressure in the high-pressure plumbing (hose) and the pump head to 3200 psi while restraining the propellers with wood blocking to induce the test pressure. Hydrostatic test data from a Jacksonville QA report indicates that all static tests conducted on the pump units successfully met the specified requirements.	Parsons Report is Misleading & Partially Incorrect
2.4.4.1 Findings All of the pump casings passed these tests. Records show some pumps tested were not initially successful and that these pumps went through corrections and further testing. The types of malfunctions noted in the reports during equipment testing are considered normal in an industrial manufacturing environment. The Parsons team's opinion is that the pumps were conclusively tested to an acceptable operational standard.	No Comment

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All of what the PSR reports here is false. The actual static testing requirement changes three times over the life of the factory testing for the original pump assemblies. At first 90 min static testing in accordance with HI Standards was as the contract required. As was all things, MWI objected to this, asked for, and received, lessened static testing requirements which included "dead heading" the pumps – jam the impeller to keep it from turning and engage the pump assemblies. This could only be done for a minute or two as temperatures rose quickly and the pump assemblies had to be turned off or they would end their run with a large disengagement "bang" that would send the mechanics in the area scrambling. Only **4** pump assemblies were tested using this method. The last static testing requirement were restored more to the original except instead of testing to 1.5 times operating pressures (4,800 psi) they tested to 0.93 times operating pressures (3,000 psi). Only **25** of the original 34 pump assemblies pass this revised static testing. The remaining **5** pump assemblies have no record of any static testing ever accomplished where the pump assemblies were either "dead headed" or tested for 90 min. with an outside pressure source.	This is a very serious violation of good engineering practices and Parson should have never condoned these tests.
PSR: 2-8 **2.5 Field Testing...** **2.5.1 Performance Testing**	No Comment
No comment.	
PSR: 2-10 **2.5 Field Testing...**	
2.5.2 Acceptance Testing The field acceptance tests for each complete system included running at least 2 hours at an engine speed of 1,800 rpm and a hydraulic pressure of 3,200 psi. Steady-state conditions, engine rpm, engine jacket temperature, hydraulic system oil pressure and temperature, leakage (required: none), and canal level were monitored. These tests were conducted on each hydraulic pumping system by the contractor with oversight by USACE. USACE documented any deviations from the testing parameters including pump speeds, run times and temperatures. The documentation showed all abnormalities previously identified in the pump manufacture and installations were corrected prior to the acceptance tests....Most abnormalities were corrected by September, 2007, with a few minor issues still noted in the punch list for the drive units....	Parsons Report is Misleading & Partially Incorrect
Nothing as reported in the PSR here is truthful. Per the official USACE QA Reports for all the acceptance testing conducted the following represent what <u>are</u> truthful statement: • **None** of the hydraulic pumps undergoing field acceptance testing ran at least 2 hours at an engine speed of 1,800 rpm and a hydraulic pressure of 3,200 psi. • **None** of the hydraulic pumps undergoing field acceptance testing had their steady-state conditions recorded – i.e.; engine rpm, engine jacket temperature, hydraulic system oil pressure and temperature, leakage (required: none), and canal level were monitored. • USACE did **not** document any deviations from the testing parameters including pump speeds, run times and temperatures. • The documentation did **not** show all abnormalities previously identified in the pump manufacture and installations were corrected prior to the acceptance tests – in fact documentation shows numerous pumps experienced subsequent catastrophic failures after supposedly passing stated acceptance testing. • All significant abnormalities were **not** corrected by September.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	**APARIQ Comments on Validity**
PSR: 2-10 **2.5 Field Testing...** **2.5.2 Acceptance Testing...** A review of the acceptance test results of the pumps follows.... **2.5.2.1 London Avenue** Acceptance tests for the London Avenue Canal pumps started in July 2007. The test results indicate that fully loaded run tests were performed on 12 pumps at the site. Out of the 12 pumps tested, 9 pumps passed the initial acceptance tests. Functional abnormalities such as oil leaks, high oil temperature, and overheating gear oil caused the 3 pumps to fail the initial tests. These abnormalities were corrected and the 3 pumps then passed the running test as shown on the pump acceptance log, dated November 2007.	Parsons Report is Misleading & Partially Incorrect
Again, nothing as reported in the PSR here is truthful. Per the official USACE QA Reports for, all the acceptance testing conducted, the following represent what <u>are</u> truthful statements for acceptance testing conducted at the London Avenue Outfall Canal: • **2** of the 12 hydraulic pumps with <u>no</u> testing data recorded even though QA personnel were on site (at the outfall canal closure structures in question) and recording other work ongoing. • **1** of the 12 hydraulic pumps recorded as "ran" with <u>no</u> other testing data recorded (time/pressure/speed/oil temp/water temp/canal level/conditions/leaks). • **6** of the 12 hydraulic pumps recorded as running 2 hours with <u>no</u> other testing data recorded. • **2** of the 12 hydraulic pumps recorded as <u>failing</u> the acceptance testing (Durst Drive overheating) on the very day cited as "passing" same. A subsequent retest showed one pump reported as "passing" retest yet experiencing hydraulic oil leak and GOCM unable to disengage, and, the other pump reported as "ran" for 2 hours with <u>no</u> other testing data recorded. • **1** of the 12 hydraulic pumps recorded as <u>failing</u> the acceptance testing as the pump was in by-pass mode. Subsequent retesting cited the pump as "ran" with <u>no</u> other testing data recorded. • **1** of the 12 hydraulic pumps record as previously "passed" acceptance testing was run almost two weeks later and experienced a hydraulic oil leak at the Denison hydraulic pump.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
Nothing as represented in the PSR here is truthful. Per the official USACE QA Reports for, all the acceptance testing conducted, the following represent what <u>are</u> truthful statements for acceptance testing conducted at the Orleans Avenue Outfall Canal: • **4** of the 10 hydraulic pumps with <u>no</u> testing data recorded even though QA personnel were on site (at the outfall canal closure structures in question) and recording other work ongoing. • **2** of the 40 hydraulic pumps with <u>no</u> record of any testing done at all. • **2** of the 10 hydraulic pumps recorded as "passed" with <u>no</u> other testing data recorded (time/pressure/speed/oil temp/water temp/canal level/conditions/leaks). • **1** of the 10 hydraulic pumps recorded as running 2 hours with <u>no</u> other testing data recorded. • **1** of the 10 hydraulic pumps recorded as running 1.5 hours with <u>no</u> other testing data recorded. • **1** of the 10 hydraulic pumps reported as "passing" is simultaneously reported as failing the acceptance test 10 min into the test run due to a suspected hydraulic oil leak in a subsequent email. • **1** of the 10 hydraulic pumps, with a failed seal reported 5 days prior to acceptance testing, is reported as "passing" yet <u>no</u> testing data recorded even though QA personnel were on site (at the outfall canal closure structures in question) and recording other work ongoing. • **2** of the 10 hydraulic pumps record as previously "passed" acceptance testing were run almost two weeks later and both experienced catastrophic failures – one experienced O-Ring failure, the other failed Seals.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	**APARIQ Comments on Validity**
PSR: 2-10 to 2-11 **2.5 Field Testing...** **2.5.2 Acceptance Testing...** A review of the acceptance test results of the pumps follows.... **2.5.2.1 London Avenue...** **2.5.2.2 Orleans Avenue...** **2.5.2.3 17th Street**	No Comment
Acceptance tests for the 17th Street Canal pumps started in August, 2007. The test logs of September, 2007 indicate 10 out of 18 pumps underwent the fully loaded test and all 10 pumps passed. No functional abnormalities occurred with these ten pumps. The remaining 8 pumps were tested by September, 2007 with all 8 pumps passing. Quality Assurance Reports show that due to low canal levels, some pumps were run at reduced speeds of 1400 rpm and some pumps were tested for shorter periods of 1.5 hours during pump tests. These pumps were, however, also deemed to have passed the acceptance tests by the USACE Quality Assurance Team because performance was demonstrated upon reaching 45 minutes of steady state conditions.	Parsons Report is Misleading & Partially Incorrect
Nothing as represented in the PSR here is truthful. Per the official USACE QA Reports for, all the acceptance testing conducted, the following represent what <u>are</u> truthful statements for acceptance testing conducted at the 17th Street Outfall Canal: • **2** of the 18 hydraulic pumps with <u>no</u> testing data recorded even though QA personnel were on site (at the outfall canal closure structures in question) and recording other work ongoing. • **9** of the 18 hydraulic pumps recorded as "ran" with <u>no</u> other testing data recorded (time/pressure/speed/oil temp/water temp/canal level/conditions/leaks). • **4** of the 18 hydraulic pumps recorded as running 1.5 hours at with <u>no</u> other testing data recorded. • **1** of the 18 hydraulic pumps recorded as running 2 hours at reduced speed/pressure and <u>no</u> other testing data recorded. • **1** of the 18 hydraulic pumps recorded an O-Ring failure on the very day cited as "passing" same – <u>no</u> retest recorded and other testing data recorded. • **1** of the 18 hydraulic pumps recorded a Durst Drive did not work properly on the very day cited as "passing" same – <u>no</u> retest recorded and other testing data recorded. • **1** of the 18 hydraulic pump run the day before acceptance testing reported as overheating – on the day of acceptance testing recorded as "ran" with no other testing data recorded. • **1** of the 18 hydraulic pumps previously reported as "passing" acceptance testing is run one week later and experiences excessive vibrations during the attempted run. This same pump was run a week after this and again reported as experiencing excessive vibrations.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
PSR: 2-11 **2.5 Field Testing...** **2.5.2 Acceptance Testing...** **2.5.2.1 London Avenue...** **2.5.2.2 Orleans Avenue...** **2.5.2.3 17th Street...** **2.5.2.4 Findings** All 40 pump systems were finally accepted. It is the opinion of the Parsons team that there was due diligence in the inspection and correction of any functional abnormalities throughout the testing. Abnormalities encountered were normal to the commissioning and startup of this type of equipment.	Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	**APARIQ Comments on Validity**
The findings as presented here have no standing – they are baseless as evidenced by a complete lack truthful evidence to rely on. Simply parroting what is presented in a summary report produced by the very persons that have served to mislead and dissuade further investigation into the defective pumping equipment is insufficient. The PSR states, and the original DoDIG report also states, USACE documented the acceptance tests for all 40 hydraulic pumps with quality assurance reports (QARs) which recorded the testing parameters, including pump speeds, run times, temperature, and deviations from any of the test procedures. If only the PSR addressed these actual QA reports maybe we would not continue to delve down the same corridors of deception and misinformation. A review of the actual USACE QA reports for all acceptance testing provide a much different picture of the actual acceptance testing accomplished, or better yet, not accomplished.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
PSR: 2-11 2.6 Laboratory Physical Sump Model Testing Unable to Comment – requested a copy of the cited studies from the author, Dr. Stephen T. Maynord, and was told I could not have them.	No Comment
Dr. Maynord informed me the subject studies were initiated by a request from USACE New Orleans District (NOD) personnel (funds to do these studies provided by NOD) and he would have to call them to ask permission to release them to me. Initially Dr. Maynord indicated this should not be a problem (I am a fellow USACE engineer). Dr. Maynord subsequently contacted me to inform me NOD told him he could not release these documents to me...	No Comment – Test Reports were not available for analysis
PSR: 2-15 2.7 Conclusions... **2.7.1 Factory** All This sections regurgitates what has already been said previously and previously commented on by me.	No Comment
Please see previous comments, and, please see "MEMORANDI FOR RECORD - Factory Testing Requirements and Field Testing Requirements of the Pumping Equipment as Provided For by Contract No. W912P8-06-C-0089:"	No Comment
The PSR refuses to acknowledge the contract requirements, refuses to acknowledge this procurement was not a "normal" pump procurement with inherent deliverable differences to those of common and usual pump projects. Original contract intent was all mechanical integrity testing **had** to have been accomplished at the factory to meet the operational schedule - regardless of how the testing requirements were seeded during the factory testing when hydraulic pumps were found to be unable to meet them and conform to the original delivery schedule.	Comment of Complaintant to the Left is Valid
The PSR refuses to acknowledge the contractor was given ample time to ready his testing facility before government QA representatives were called in – in fact the schedule slipped a week and a half allowing the contractor to be completely ready before calling for notifying they were ready to commence official testing. The PSR also refuses to acknowledge what was witnessed at the factory in the way of hydraulic pump failures was **not** normal to the industry - 50% of all pump assemblies actually pumping water experienced catastrophic failures while attempting to pump water, hydraulic pumps experiencing violent vibrations with no apparent cause nor any effort made by the KTR to rectify (only to later to manifest again in the field), large numbers of hydraulic pumps failing only to later learn 40% of those that "passes" and were sent on to the field and installed were actually in a state of failure....and on, and, on, and on....none of this is normal to the industry.	& Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
The PSR also refuses to acknowledge that full size testing of the pumps in the testing tank was something the contractor, MWI, asked to do, not USACE – original load testing was to have been accomplished using a variable speed dynamometer, and, MWI asked for, and received, permission to substitute. The PSR is hypocritical in that they disregard that which is owed the government and instead chastise the government for requiring same, even when it's the contractor that initiated the substitute deliverable....	
How could the factory tests have been adequate and the response to correct the failures in the field suitable? This is an absurd position to take. Not surprising to me is the PSR refuses to acknowledge the very nature regarding the chronology of the morphing of the factory testing requirements culminating in an attempt to bribe a lower grade USACE employee to 'look the other way' – such behavior (on both parts, MWI and USACE) speaks volumes to the true intent at hand; to push the failing pumping equipment as fast as possible out the door, into the field, where we then had no truly adequate means available to address the problems that would ensue. And, you can't address problems you don't acknowledge as having. We had pumps in a failing state that were now installed in the middle of canals, no means to test run them due to inadequate water levels, and any need to remove pump assemblies for repairs would now require herculean efforts – however, the biggest problem was USACE had no will to even acknowledge there was even anything wrong with the hydraulic pumps in question and reported them as perfect hydraulic pump specimens as they were being installed at all outfall canals. Where was there the will to correct the deficiencies? Only after repeated MFR's, Official filings of Declarations, Affidavits, formal OSC filing.....where was the free will of USACE TFH to solve this problem...without my insistence? The standard of suitable response the PSR should have used is not the reactionary actions of USCAE to this problem, but the proactive actions by USACE to the problem.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
PSR: 2-16 2.7 Conclusions... **2.7.1 Factory...**	No Comment
2.7.2 Field The acceptance and endurance testing in the field was performed in general conformance with industry standards. The anomalies experienced during the acceptance testing are consistent with the types of anomalies normally experienced during the startup phase of permanent pump stations designed and constructed for USACE. Correction and retesting is typically administered until the witnessed anomalies are eliminated and there are no other anomalies experienced. The acceptance testing documentation indicates consistency with this industry standard.	Parsons Report is Misleading & Partially Incorrect
This section also regurgitates what has already been said previously and previously commented on by myself.	No Comment
Please see previous comments. Also, please Section 3.1 "Acceptance Testing" for additional rebuttal to this issue.	No Comment

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	**APARIQ Comments on Validity**
To recap a response to this section of the PSR; the acceptance testing the PSR contends happened in actual fact **never** took place. When using data as recorded by USACE Task Force Hope QA personnel, **none** of the hydraulic pumps were run at the official contractually agreed to (required) Acceptance Testing Procedures, and, **none** of the hydraulic pumping equipment system operating parameters were recorded as contractually required (time/pressure/speed/oil temp/water temp/canal level/leaks/ambient conditions). In fact, official USACE Quality Assurance QA records for the Acceptance Testing cited in the PSR **prove** the assertions made in the PSR are false. The actual condition of the hydraulic pumps that "pass" acceptance testing has been discussed previous and will be discussed further in later Sections.	Parsons Report is Misleading & Partially Incorrect
PSR: 3-1 **Section 3 – Vulnerability Analysis** 3.1 Purpose …….Substantially witnessed abnormalities of the pumping systems were observed during the fabrication and assembly processes. As discussed in previous sections these types of tests are not typically witnessed by the purchaser as they are identified and resolved by the fabricator before the inspection effort. Therefore, the observations by the witnesses during fabrication are considered in-progress observations. Witnessed underperformance and the resolution of those conditions were considered in this report. The Parsons team's vulnerability analysis focuses on the final configuration and performance records of the system as it currently exists at all three canal outfall locations, which is a better indication of actual vulnerability of the system.	Parsons Report is Misleading & Partially Incorrect
A vulnerability analysis that specifically omits the plethora of witnessed and documented hydraulic system failures occurring at the time when the hydraulic equipment was being operated the most – failures, all of which, that have replicated themselves **extensively** in the field subsequent to being shipped to New Orleans and installed at all three outfall canals….. A vulnerability analysis should focus on identifying, and reducing the vulnerability of, the hydraulic pumping equipment components that pose the most danger of failure. The plethora of witnessed and documented hydraulic system failures occurring in the factory during testing were **not** suitably addressed and resurfaced in subsequent field test runs. In fact, to give a clear example, during the 'suto' acceptance testing that was conducted in mid-late 2007, in a **one week** period **four (4)** of the small number of pump assemblies attempting the testing experienced **catastrophic failure**; O-Ring/Seal failure. To give a broader example, during this same period time of ongoing acceptance testing, in just a six week period of time there were recorded five (5) pump assembly failures with associated O-Ring/Seal failure, five (5) failures due to Durst Drive overheating/not functioning properly/systems overheating, a Denison hydraulic pump failure, two (2) instances of hydraulic oil leaks (at a Denison pump, at a control panel) with a GOCM not able to shut down, and tow (2) instances where pump runs where vibrations/pulsating were recorded (even though the pump had a brand new pump assembly motor installed prior). Mind you this was after all pumps were deemed to have been cured of their vibration problems, all pump assemblies motors were retrofitted, and all pumping equipment was stated to the public to be ready for service in the even of a hurricane and in perfect health.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	**APARIQ Comments on Validity**
These unresolved failure/potentially catastrophic vulnerability issues that should be addressed are as follows: • Acceptance testing. As this response will document, there has not been suitable/adequate/reasonable acceptance testing accomplished. Nor has there been acceptance testing done as reported by the PRS. The hydraulic pumping equipment has undergone numerous and varied system corrections/reconfigurations in attempts to mitigate some of the failure issues highlighted. Any attempt to state the hydraulic pumping equipment is now somehow suitable for its intended service must include an appraisal of the modified system with feedback to analysis the synthesis of information obtained in any system evaluation. Two factors remain unaddressed here – the complete lack of acceptance testing as even described by the PSR as having occurred (and I would question the suitability of that on it's own even if it were done as reported), and, the complete lack of testing the mechanical integrity of any of the supposed corrective measures to the hydraulic pumping equipment taken to date. • O-Ring/Seal failure issues. The first O-Ring failure was witnessed at the factory on April 18, 2006. Subsequent catastrophic pump assembly failures in the testing tank at the factory can also likely be attributed to this same phenomena. And, as already discussed above, there have been a plethora of pump assembly failures with associated O-Ring/Seal failures that occurred long after supposed corrective measures were taken. Obviously, these corrective measures did not work if such a large number of pump assemblies are still experiencing there same type of failures. • Hydraulic system design deficiencies. There has been no attempt to address the hydraulic system design as inherently deficient – this must occur as it is the best means available to give some insight into the vast and numerous failure issues surrounding the hydraulic pumping equipment. In example, **the Durst drive chosen for the hydraulic pumping system appears to be inadequate.** The Cat Engine, rated 735 hp at 1800 rpm, has an output torques of **3218 lb ft** while the maximum input torque allowed by the Durst drive is **1995 lb ft.** This might give some insight as to the extensive problems seen in the field with regards to pump run failures due to overheating Durst drives....	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
• Gear Oil Circulation Motor/Durst Drive failure issues. This issue was deemed to have been addressed at the testing factory. As is discussed above, obviously this issue has not been addressed effectively. • High pressure hydraulic pipe failure issues. The steel piping issue has yet to be addressed – all while the pipe remained unpainted, and, a contract to paint the piping called for sand blasting the pipe to remove the built-up rust – another issue that see's the effective pipe thickness get smaller, and smaller, when there was never any room to do so in the first place. An analysis is needed that takes into consideration the actual physical state of the high pressure hydraulic steel pipe. • Excessive hydraulic system pressures and related hydraulic component failures. The hydraulic pumping equipment experiences what appears to be excessive internal hydraulic oil pressure related failures – this issue is likely ties to hydraulic system design deficiencies.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
PSR: 3-1 **Section 3 – Vulnerability Analysis** 3.1 Purpose... .....The scope and assumptions for the vulnerability analysis is as follows: • The temporary pump stations are designed for a 5- to 7-year service life because they will be replaced with permanent pump stations by 2013.	Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
It appears the PSR bases its analysis/assessments on a fundamentally faulty premise A $530M project has a 5-7 year life span.....A $530M project that is to be abandoned in place and an almost identical (gated/permanent closure structure with installed pumps) project (cost of $800M) built a stones throw from the abandoned in place project (a few, at most, 100 yards further downstream)....Ok...I'm back in Iraq where the absurd is considered plausible again and very soon to become part of my new "reality".... Our pumping equipment installed onto all three of the outfall closure structures was not meant to have, **nor does it have**, a 5-7 year life span. House Bills that have become subsequent Public Laws demonstrate this conclusively - public statements by the Commander of TFH also demonstrate this conclusively. Not to mention, our contract to procure these hydraulic pumps makes no mention as a "temporary" in nature status (5-7 year life span) of the hydraulic pumping equipment to be delivered, and, further specifically specifies the hydraulic pumping equipment supplied shall "conform with all requirements of the contract". Defining such conformance includes that the contract specifications even call for a specific requirement for a critical component of the hydraulic pumping system, the shaft bearing, "shall be designed for an L10 life of 50,000 hours" (L10 ⍰ expected life of 90% of similar bearings) – for hydraulic pumping equipment designed to be utilized for hurricane protection this equates to a more than 50-year life span. In addition, the proposed project the PSR infers will replace our closure structures with installed pumps has not been signed into Public Law yet – this project is only in the planning phase, and, once Congress finally determines they have been mislead by USACE, that their original $530M project is now being abandoned in place and not considered in any of the future add-on projects (as required by Public Law 110-28), they will likely be rather upset.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
I will discuss this issue in greater detail in Section 3.4 "Intended lifespan of Pumping Equipment Installed at the Three Closure Structures".	No Comment
To give a very brief overview here of what constitutes the intended lifespan of our pumping equipment installed at all three outfall closure structures as defined by official government documents and public statements by the Commander of TFH:	No Comment
PUBLIC LAW 109–234—JUNE 15, 2006. Provides the funds to build outfall canal closure structures and install pumps at 17th Street, London Avenue, and Orleans Avenue.	Comment of Complaintant to the Left is Valid
Public Law 110-28. Specifically states:	
"That the Secretary of the Army is directed to use the funds appropriated under this heading to..... provide hurricane and storm damage reduction and flood damage reduction in the greater New Orleans and surrounding areas; $530,000,000 shall be used to modify the 17th Street, Orleans Avenue, and London Avenue drainage canals and install pumps and closure structures at or near the lakefront;."	
PUBLIC LAW 110–28—MAY 25, 2007. *Provides the funds to investigate the technical advantages, disadvantages, and operational effectiveness of: (1) operating the new pumping stations at the mouths of the 17th Street, Orleans Avenue, and London Avenue canals (as authorized and direct for construction by Public Law 109-234 cited above) concurrently or in series with existing pumping stations serving these canals (SWB pump stations); (2) removing the existing pumping stations (SWB pump stations) and configuring the new pumping stations (adding capacity to the new closure structures at all three outfall canals) and associated canals to handle all needed discharges; and (3) replacing or improving the floodwalls and levees adjacent to the three outfall canals.* *And, a very brief snip-it from one of Col Bedey's many public statements on the life span of the interim closure structures with installed pumps, recorded on* ***February 12, 2008****:* *"....We have temporary closure structures at the 17trh St. Canal, Orleans and London. Those are*	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
interim,....Interim protection provides 100-year protection but not permanent nature protection. We have 100-year protection in place but we don't have permanent protection in place. These have something around a 50-year lifespan. These were designed to there for 50-years." *Bottom line, our closure structures with installed pumps were never meant to be anything less than industry standard type procurements with life spans similar, as defined by the contract, and, as defined by Public Law.* *There is no project that has been signed into Public Law that defines our project any different. There is an attempt in process by USACE to abandon in place the existing $530M closure structures with installed pumps and build an almost identical project (gated/permanent closure structure with installed pumps) at a proposed cost of $800M a stones throw from the proposed abandoned structures (a few, at most, 100 yards further downstream)....however, as I stated previous, there is no formal authorization yet to abandon the newly built structures, and, Congress has not yet addressed USACE's apparent unresponsive Report to Congress where they did not study future follow-on projects that incorporate our newly built closure structures with installed pumps into the proposed project options.* *Any analysis that attempts to shorten the lifespan of our hydraulic pumping equipment 10 fold is without any credibility.*	& Partially Incorrect
PSR: 3-4 to 3-5	
3.4 Component Vulnerabilities 3.4.1 Findings... • **Unpainted hydraulic oil piping:** **All**	
This analysis by the PSR is without standing. I know of no mathematical way to arrive at suitable numbers using ASME B31.3 process piping guide. Please refer to my first response to the DoDIG, "Response: Contract Issues – Allegation No. 13", pages 37-39. In addition, there is no mention in the PSR what other considerations were made in the apparent "analysis" – missing would be some consideration for a significant additional loss of pipe thickness due to the ensuing sand blasting the hydraulic steel pipe is/was to undergo for subsequent painting. In addition, the environmental conditions the pipe has been subject to appear to have been glanced over – the pipe has been subject to a very harsh corrosive environment – installed directly over salty/brackish water for more than three (3) years. Regardless, using Parsons ridiculously low value for corrosion would still yield our pipe is still unsuitable: $t_{min} = \frac{PD}{2(SE + PY)}$ (for $t_{min} < D/6$) S = 16,000 psi *Stress value for material* from Table A-1, Basic Allowable Stresses in Tension for Metals, ASTM B31.3 (16ksi for this temperature range) E = 1.0 *Quality factor* from Table A-1, Basic Allowable Stresses in Tension for Metals, ASTM B31.3 (seamless pipe)	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
D = 3.5" *Outside diameter of pipe* Y = 0.4 *Coefficient* from Table 304.1.1 (valid for t < D/6) - temp < 900 F **Therefore, t_{min} = 0.3052326"** Add Corrosion Allowance (CA) as provided by Parsons: t_{corr} = t_{min} + CA = 0.3052326" + 0.02" = **0.325233"** Adjust For Mill Tolerance: t_{total} = t_{corr} /0.875 = 0.325233"/0.875 = **0.3717"** Determine the appropriate Pipe Schedule from table: for 0.3717" wall thickness, Schedule 160 = 0.438" wall thickness – our pipe is Schedule 80 = 0.300 "...**meaning, our Schedule 80 pipe is undersized.** FYI, our steel pipe is from Spain – I decided to check the mill certs that came with the pipe, and, also decided to have our site piping contractor cut a random piece of pipe to check the mill tolerances. As I suspected, the pipe that is used in the construction of our hydraulic pipe physically exhibited the over and under pipe thicknesses specified by the mill certs, a +- 0.375". Not only does ASME B31.3 require an adjustment for mill tolerance, but my own physical inspection of the pipe verified the hydraulic pipe exhibited areas of thickness less than 0.300" and down as far as 2.625".	
PSR: 3-8 3.7 Pump Capacity Analysis The design rainfall event serves as the basis of this analysis to determine the required and calculated pumping capacity for the 17th Street, London Avenue, and Orleans Avenue temporary pump stations. For the purpose of this report, this event is noted as the design rainfall event.	Comment of Complaintant to the Left is Valid &
Again, the PSR bases its analysis/assessments on a fundamentally faulty premise. The PSR uses a design rainfall event of 10-years. **This is improper**. Per USACE's own formal/official reports to Congress, and voluminous public statements, the interim closure structures with hydraulic pumps installed was designed to provide a 100-year level of protection – this is a level of protection equivalent to Hurricane Rita (comparing, Katrina was a 396 year storm). Any and all "analysis" results the PSR provides are without merit as they are based on incorrect storm event levels. Interestingly, the 10-year rainfall event equates to the current capacity of the installed pumps at the closure structures (without additional rental pumps augmenting), so, obviously all conclusions in the pumping capacity analysis would be positive as to meeting pumping capacity needs – falsely positive however.	Parsons Report is Misleading & Partially Incorrect
PSR: 3-10 **3.8.1 Mechanical**	No Comment

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 2 – Point-By-Point Response to the PSR	APARIQ Comments on Validity
All	
Incredibly, the PSR omits from their vulnerability "analysis" a very important and significant component of the hydraulic pumping equipment system; the Durst drive. **And, interestingly, it turns out the Durst drive is severely undersized.** The pertinent installed and operational hydraulic pump components: • Caterpillar 3412E DITTA rated 735 hp at 1800 rpm diesel engine • Durst 2PD10 1:1 ratio Pump Drive After a review of the spec sheets for the supplied Caterpillar diesel engine, Durst pump drive, and the Durst application sheet, it was determined the output torque of the Caterpillar diesel engine exceeds the maximum allowed input torque of the Durst pump drive. Maximum input torque for the 2PD10 Durst pump drive is **1995 lb ft.** Output torque for the Caterpillar 3412E diesel engine is **2145 lb ft times a service factor**. The Caterpillar **service factor** is **1.5** as these units are designed to function as components in emergency pumping equipment operated during hurricane events and likely experience uniform loading – a direct hit hurricane event obviously last over 3 hours, and more likely far exceeds 10 hours.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
As such, using a service factor of 1.5, the output torques from the Caterpillar diesel engine is **3218 lb ft** while the maximum input torque allowed by the Durst pump drive is **1995 lb ft.**	
Of important note, as evidenced from historical hydraulic pump runs in the field (e.g. recorded SCADA data for outfall canal pump runs during Hurricane's Gustov and Ike) the hydraulic pumps spend the bulk of their time (more than ½) running at speeds of between 1250-1550 rpm, and the rest of the time at even lower speeds. This is important because the lower the prime mover speeds the higher the prime mover output torque - e.g. at 1400 rpm the Caterpillar output torque is 2511 lb ft, times a service factor of 1.5, the input torque the Durst pump drive sees is 3767 lb ft, or almost twice the maximum allowed. In addition, as I have previously mentioned, there is extensive documentation that demonstrates there have been severe and extensive problems associated with Durst pump drives and GOCM's during subsequent field operations. Specifically, Quality Assurance (QA) reports from the short period of time during 'acceptance' testing (June-September 2007) indicates there were numerous failure issues/problems associated with the Durst pump drives and GOCM's. In addition, emails from USACE personnel in the field from this same time period speak to these Durst pump drive and GOCM failure issues, including calling the Durst drive problems as "**epidemic**" in nature – excerpts as follows:	

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
Email sent on 03 August 2007 from the USACE Resident Engineer to the TFH pump team stating: Pump 3E had an oil circ pump problem, so we're back to running 2E at a reduced speed in order to get 1E past the test. Email sent on 03 August 2007 from the USACE Resident Engineer to the TFH pump team stating: Pump no 2W had a gear drive temp problem after 25 min, so we're shutting it down and running 1W. Email sent on 04 August 2007 from a USACE Construction Representative in the field to the TFH pump team stating: Pump 2w failed after 1/2 hour because the gear oil in the Durst overheated. ... Pump 3e failed because the gear oil in the Durst overheated. Email sent on 05 August 2007 from the USACE Resident Engineer to the TFH pump team stating: Pump 4W had a Durst drive oil temp problem and only ran for half an hour. It also developed a small leak at a coupling on the platform at the PU. Email sent on 05 August 2007 from the USACE Resident Engineer to the TFH pump team stating: We appear to have an epidemic of Durst drive oil circulation pump problems. We're shutting down the east pump test and moving to test two west pumps.	No comment
PSR: 3-14 to 3-16 3.9 Conclusions All	
As stated previous; all vulnerability analysis by the PSR is completely without credibility as it basis its conclusions on faulty premise – i.e. analysis based on a 5-7 year pumping equipment lifespan, and, a 10-year rain even. In addition, as already described above, other findings were found as faulty for the other reasons stated herein. It seems a ploy on the PSR's part to lower to bar to such a ridiculously low level in order to provide misleading and false conclusions of adequacy of the hydraulic pumping equipment in question.	No Comment

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	**APARIQ Comments on Validity**
3.10.1 Hurricane Gustav All – including Table 3-10 and Table 3-11 **3.10.2 Hurricane Ike** The information as presented in the PSR is misleading, incomplete, and also not factual. All – including Table 3-12, Table 3-13, and Table 3-14 **3.10.3 Conclusions** All	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
I have compiled the actual SCADA data for the pump runs during both hurricane events and will present additional/supplemental response with graphs and spreadsheets in Section 3.3 "Hydraulic Pump Runs During Hurricanes Gustav and Ike". First, the PSR concludes this section with the statement they are confident that the hydraulic pumps will perform as designed and constructed to cope with the design rainfall event – because the PSR bases its analysis on a design rainfall event of 10-years, and not the correct design storm event of 100-yerards, the analysis and conclusions proffered have no standing/are without credibility.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
My Pont-By-Point Response For Hurricane Gustav: I have the following comments regarding the information presented in this section of the PSR: • The hydraulic pump run times reported in the PSR are not factual. • The individual hydraulic pump flow as reported in the PSR is not factual. • The volume of flow reported for the hydraulic pumps as reported in the PSR is not factual. • The canal levels as reported in the PRS are not factual. • The PSR states the hydraulic pumps were mainly used to bring the canal levels down – this is not a truthful statement. • Contrary to what is implied in the PSR, there was never any need to shut the gates and run the pumps – direct drive or hydraulic pumps. The PSR reports that the hydraulic pumps were run a total of **105.3** pump hours at London Avenue – this is not true. The hydraulic pumps at hydraulic pumps at London Avenue were actually run a total of **92** hours. The PSR reports that the hydraulic pumps were run a total of **224.5** pump hours at 17th Street (see pg 3-18) – this is not true. The hydraulic pumps at 17th Street were actually run a total of **58.5** hours. A review of Table 3-11 reveals the PSR total summation cell value for the individual hydraulic pumps is the place where a large portion of the incorrect value reported can be explained (total run time cell for each hydraulic pump reflects a summation error imbedded in the cell matrix for many pumps). The PSR reports the individual hydraulic pump flow as full flow, 220 cfs, for each of the hydraulic pumps run – nothing could be further from the truth. This would imply each and every hydraulic pump was run at full (**100%**) operating pressures/speeds – **this never occurred**. In fact, on average, each of the hydraulic pumps run during hurricane Gustav at London Avenue only ran at 3/5ths (**60%**) operating pressures/speeds, and, on average, each of the hydraulic pumps run during hurricane Gustav at 17th Street only ran at 2/3rds (**67%**) operating pressures/speeds. The PSR reported volume of flow reported for the hydraulic pumps is not factual – as can already be deduced, such total flow calculations are a function of actual number of hours run and actual flow rate for	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
the hydraulic pumps that were run. The canal levels as reported in the PRS are not factual. It appears the PSR is not using canal levels as reported by the SCADA data. Actual canal water levels during all periods of pump operation will be provided in a reference document to be cited and discussed further in Section 3. 3 "Hydraulic Pump Runs During Hurricanes Gustav and Ike". The PSR states the hydraulic pumps were mainly used to bring the canal levels down at London Avenue – this is not a truthful statement. Prior to the hydraulic pumps being operated the Direct Drive pumps were operated for 30 minutes and successfully dropped the canal water elevation 1' at London Avenue (4.34' to 3.38').	
It was never necessary to shut the gates at 17th Street or London Avenue – if the gates had never been shut the safe water level at either outfall canal would never have been met or exceeded. The safe water level at London Avenue is 5' – the highest the water level ever reached on the lake side of the closure structure was 4.76' (occurring during a period of time the gates were closed and the water level on the canal side of the closure structure was a corresponding 2.25'). The safe water level at 17th Street is 6' – by 9/1/08 20:50 the highest the water level ever reached on the lake side of the closure structure was 2.31' (occurring during a period of time the gates were closed and the water was allowed to build up to a corresponding 4.6' on the canal side of the closure structure – by 9/2/08 1:23 the highest water level, 2.5', on the lake side of the closure structure was recorded, and a corresponding water level of 2.12' was recorded for the canal side of the closure structure (pumping was occurring)). Finally, the following is an email sent by Ms. Karen L Durham-Aguilera, Director, SES, P.E., Task Force Hope, to USACE upper command at MVD and Corps HQ. The email communicates forward a supposedly factual account of how the hydraulic pumps were utilized and functioned during Hurricane Gustov. This email was sent sometime during 09/02/2008 and reads as follows:	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	**APARIQ Comments on Validity**
My rebuttal to the unfactual content of this email is as follows: 1) Belying the implied need expressed in the cited email, Hurricane Gustav posed little to no threat to the City of New Orleans, and, water levels in all three outfall canals was such that only minimal pumping was possible. The facts, and SACDA data, show storm surge as experienced at the gated closure structures **never** reached or exceeded the Safe Water Level (SWL) - had the gates never been closed for this event there would have been **no** adverse affect to the city of New Orleans from flooding 2) Belying an implied utilization status, through message structure and constructed omission, not one single hydraulic pump was operated to initial bring canal water levels down at both outfall canals – not one. Only Direct Drive pumps were initiated and operated when it was necessary to start to pump and maintain safe water levels in both outfall canals. Only after the water level was significantly reduced at London Ave. outfall canal (4.3-3.3'), and the Direct Drives proved themselves to be capable and efficient (1' drop in 30 min.), were hydraulic pumps then operated. And, only after the Direct Drive pumps were operated at 17th Street on two separate occasions over a 5.5 hr period were the hydraulic pumps then operated. 3) Contrary to the message relayed forward by the cited email not one single hydraulic pump operated at its design capacity/flow rate (full operating speeds/pressures to meet design flow capacity). 4) Contrary to the overall intent of the message relayed forward by the cited email Hydraulic pump run periods, times, and operating speeds/pressures as documented were not examples of pumps being pressed into emergency pumping service and operated at full design capacity – they were nothing but 'exercise'/'demonstration' pump runs that proved nothing as to the functionality and operability of these hydraulic pumps. These reduced pump run periods, times, and operating speeds/pressures are also the remedy that was be used to keep failing and in the process of failing hydraulic pumps running significantly longer before ultimate failure – a remedy known to TFH and NOD. 5) Contrary to the message relayed forward by the cited email, the 4 hydraulic pumps cited at London Ave. outfall canal did not operate for a 12 hour duration during the night – the most any hydraulic pump ran were WP03, WP05 and WP06 which ran for 7.5 hours at ¾ or less operating speeds/pressures. 6) Contrary to the message relayed forward by the cited email all the hydraulic pumps at London Ave. outfall canal did not run most of the night. 7) Contrary to the message relayed forward by the cited email the 6 hydraulic pumps cited at 17th Street (1-6E) did not run continuously for 10 hours from 2100 hrs to 0700 hrs - they ran intermittently for a total of 7.5 hrs at significantly reduced operating speeds/pressures. 8) A hero in size omission not honestly communicated forward by the cited email is that TFH and NOD did not have good faith the hydraulic pumps would operate as required. This is evidenced by the nature of how the hydraulic pumps were operated - by executing exercise/demonstration level pump runs (coupled with their full knowledge failing and in the process of failing hydraulic pumps will stay operational longer by running them at reduced speeds/pressures), including, not operating a single hydraulic pump to initially bring canal water levels down at both outfall canals. Only Direct Drive pumps were initiated and operated when it was necessary to start to pump and maintain safe water levels in both outfall canals, and only when the Direct Drives were shown to be successful were hydraulic pumps then utilized. In addition, TFH & NOD had the opportunity to finally be able to run more than one or two hydraulic pumps at design level conditions (full operating speeds/pressures) for more extended periods of time – something they were previously unable to do due to previously insufficient canal water levels (due to the Corps pump-on elevation design flaw). They purposely chose to not do this...	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 2 – Point-By-Point Response to the PSR**	APARIQ Comments on Validity
My Pont-By-Point Response For Hurricane Ike: I have the following comments regarding the information presented in this section of the PSR: • The hydraulic pump run times reported in the PSR are not entirely factual. • The Direct Drive pump run time reported in the PSR for 17th Street is not factual. • The individual hydraulic pump flow as reported in the PSR is not factual. • The volume of flow reported for the hydraulic pumps is not factual. • The PSR states the hydraulic pumps were run intermittently over two days at 17th Street outfall canal – this is a gross misleading statement. • The PSR strongly implies the hydraulic pumps were responsible for maintaining a safe water level at London Avenue outfall canal - this a misleading and untruthful statement.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
The PSR reports that the hydraulic pumps were run a total of **28.6** pump hours at 17th Street – this is not entirely factual. The hydraulic pumps at 17th Street were actually run a total of **24** hours. A review of hydraulic pump runs for London Avenue indicated the PSR reported value and my calculated value were relatively similar (15.93 vs 16.25 hours respectively). The PSR reports that the direct drive pumps were run a total of **76.4** pump hours at 17th Street – this is not true. The direct drive pumps at 17th Street were actually run a total of **12.3** hours. The PSR reports the individual hydraulic pump flow as full flow, 220 cfs, for each of the hydraulic pumps run – nothing could be further from the truth. This would imply each and every hydraulic pump was run at full (**100%**) operating pressures/speeds – this never occurred. In fact, on average, each of the hydraulic pumps run during hurricane Ike at London Avenue only ran at 3/5ths (**60%**) operating pressures/speeds, and, on average, each of the hydraulic pumps run during hurricane Ike at 17th Street only ran at 3/4ths (**75%**) operating pressures/speeds. The PSR reported volume of flow reported for the hydraulic pumps is not factual – as can already be deduced, such total flow calculations are a function of actual number of hours run and actual flow rate for the hydraulic pumps that were run. The PSR states the hydraulic pumps were run intermittently over two days at 17th Street outfall canal – this is a gross misleading statement. In fact, on average, for each hydraulic pump run at 17th Street, 11 in total (not the six reported in the PSR) they only operated an average of only a total 2.2 hours at 75% operating pressures/speeds. If run "intermittently" over a two day period this would result in an average run time of 2 ¾ minutes every hour. The PSR strongly implies the hydraulic pumps were responsible for maintaining a safe water level at London Avenue outfall canal – nothing could be further from the truth. Of important note, hydraulic pumps were never run to initially bring down canal water levels – only direct drive pumps were ever used to initially bring down canal water elevations. Hydraulic pumps were used intermittently, run at reduced pressures/speeds, and were only run a total of 16.25 hours – for the 9 hydraulic pumps run at London Avenue that resulted in an average run time of just over 1 ¾ hours each at 60% operating pressures/speeds. In contract, direct drives were run at London Avenue a total of 50.25 hours resulting in an average run time of over 6 ¼ hours each. Therefore, for the limited pumping required at London Avenue, direct drive pumps were run 3.5 times more than the hydraulic pumps which were run at severely reduced operating pressures/speeds.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	**APARIQ Comments about Validity**
Section 3.1 – Lack of Credible/Factual Acceptance Testing Recapping what has been discussed prior: Nothing as reported in the PSR is truthful.	
The DoDIG states "The final acceptance tests for each hydraulic pumping system were conducted in the field by the contractor with oversight by USACE. USACE documented the tests with quality assurance reports (QARs) which recorded the testing parameters including pump speeds, run times, temperature, and deviations from test procedures."	No Comment
The PSR states "acceptance tests for each complete system included running at least 2 hours at an engine speed of 1,800 rpm and a hydraulic pressure of 3,200 psi. Steady-state conditions, engine rpm, engine jacket temperature, hydraulic system oil pressure and temperature, leakage (required: none), and canal level were monitored. These tests were conducted on each hydraulic pumping system by the contractor with oversight by USACE. USACE documented any deviations from the testing parameters including pump speeds, run times and temperatures." However, a comprehensive review of the official USACE QA Reports for all the acceptance testing conducted demonstrates the following represents what <u>are</u> actual truthful statements: • **None** of the hydraulic pumps undergoing field acceptance testing ran at least 2 hours at an engine speed of 1,800 rpm and a hydraulic pressure of 3,200 psi. • **None** of the hydraulic pumps undergoing field acceptance testing had their steady-state conditions recorded – i.e.; engine rpm, engine jacket temperature, hydraulic system oil pressure and temperature, leakage (required: none), and canal level were monitored. • USACE did **not** document any deviations from the testing parameters including pump speeds, run times and temperatures. • The documentation did **not** show all abnormalities previously identified in the pump manufacture and installations were corrected prior to the acceptance tests – in fact documentation shows numerous pumps experienced subsequent catastrophic failures after supposedly passing stated acceptance testing. • All significant abnormalities were **not** corrected by September. The acceptance testing the PSR contends happened in actual fact **never** took place. The acceptance testing data, as recorded by USACE Task Force Hope Quality Assurance (QA) personnel, shows that **none** of the hydraulic pumps were run at the official contractually agreed to (required) Acceptance Testing Procedures, and, **none** of the hydraulic pumping equipment system operating parameters were recorded as contractually required (time/pressure/speed/oil temp/water temp/canal level/leaks/ambient conditions). In fact, these official USACE Quality Assurance QA records for the Acceptance Testing cited in the PSR **prove** the assertions made in the PSR are false.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	**APARIQ Comments about Validity**
Incredibly, on the dates the hydraulic pump acceptance testing was reported as completed successfully, "passed" (as reported to, and by, the GAO, DoDIG and Parsons), the actual data recorded and reported by USACE QA field personnel for these same hydraulic pumps show the following was actually **officially** recorded for the 40 hydraulic pumps cited: • **8** of the 40 hydraulic pumps with no testing data recorded even though QA personnel were on site (at the outfall canal closure structures in question) and recording other work ongoing. • **2** of the 40 hydraulic pumps with no record of any testing done at all. • **12** of the 40 hydraulic pumps recorded as "ran" with no other testing data recorded (time/pressure/speed/oil temp/water temp/canal level/conditions/leaks). • **7** of the 40 hydraulic pumps recorded as running 2 hours with no other testing data recorded. • **5** of the 40 hydraulic pumps recorded as running 1.5 hours at with no other testing data recorded. • **1** of the 40 hydraulic pumps recorded as running 2 hours at reduced speed/pressure and no other testing data recorded. • **3** of the 40 hydraulic pumps recorded as failing the acceptance testing due to Durst Drive failures on the very day cited as "passing" same. A couple weeks later one of the pumps reported as "ran" for 2 hours with no other testing data recorded, another pump was retested and recorded as "passed" yet recorded hydraulic oil leaks and a GOCM that was not functioning properly, and no retest recorded for the other pump. • **1** of the 40 hydraulic pumps recorded as failing the acceptance testing due to an O-Ring failure on the very day cited as "passing" same with no retest recorded as completed. • **1** of the 40 hydraulic pumps recorded as failing the acceptance testing as it was in the by-pass mode – a couple weeks later recorded as retested and "passed" with no other testing data recorded. In addition, QA recorded data shows in the few days after certain **handful** of hydraulic pumps supposedly "passed" acceptance testing some were used again to assist with helping achieve 'prime' for other neighboring pumps still needing to undergo acceptance testing – **3** of these hydraulic pumps experienced catastrophic hydraulic pump failures; two experienced O-Ring failures and one experienced a seal failure. Of important note, no other subsequent acceptance retesting data is recorded for any of these hydraulic pumps.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	**APARIQ Comments about Validity**
Also of important note, rainfall events as recorded by NOAA for the drainage basin associated with the three outfall canals for the entire acceptance testing period, provide physical evidence that pump acceptance testing runs, as cited in the PSR, were not possible (not enough water in the canals to run the hydraulic pumps as cited). It appears Parson has relied (like GAO and DoDIG?) on summary/executive summary/chronology documents given to them by New Orleans District (NOD) USACE Task Force Hope (TFH) instead of delving through the piles (and piles) of raw data. Also troubling, reviewing the USACE acceptance testing documentation for each hydraulic pump, in conjunction with the vibration analysis that was done for a plethora of hydraulic pumps, along with related USACE QA reports, yields some very disturbing realities – as follows: • In the Jan.-Mar., 2007 timeframe, all 40 hydraulic pumps were retrofitted with stronger/more robust rebuilt Rineer motors, and proclaimed by USACE TFH to have been successfully tested and ready for service during hurricane season if needed. These same hydraulic pumps are subsequently run (in a limited fashion) and experienced what can be characterized as catastrophic failures if occurred during a Hurricane event; i.e. O-Ring/Seal failures, hydraulic component failures, Durst Drive/Gear Oil Circulation Motors overheating, severe vibrations/pulsations during runs, and failure requiring replacement of the Rineer motor. Even with the limited USACE documentation available, still able to document **15 of the 40** hydraulic pumps in this category (and some with multiple failures). • In the Mar. 2007 time frame, numerous hydraulic pumps undergo vibration analysis (13) and reported as concluding with positive/successful results. These same hydraulic pumps are subsequently run, in a limited fashion, with numerous pumps experiencing what can only be characterized as catastrophic failures; i.e. O-Ring/Seal failures, Durst pump drive not working properly, and hydraulic system close to overheating – there are even recorded pump runs where severe vibrations/pulsations are recorded. Again, even with the limited USACE documentation available still able to document **5 of the 13** hydraulic pumps in this category (and one with multiple failures). • In the Jun. – Sept. 2007 timeframe, all the hydraulic pumps undergo acceptance testing and are reported as "passing", testing being successfully accomplished. These same hydraulic pumps are run on the day of passing acceptance testing to only a couple weeks subsequent, with numerous pumps reported as experiencing what can only be characterized as catastrophic failures; O-Ring/Seal failures, Durst Drive/Gear Oil Circulation Motors overheating, severe vibrations/pulsations during runs, etc.. Again, even with the limited USACE documentation available still able to document **8 of the 40** hydraulic pumps in this category.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	**APARIQ Comments about Validity**
The findings as presented in the PSR have no standing – they are baseless as evidenced by a complete lack truthful evidence to rely on. Simply parroting what is presented in a summary report produced by the very persons that have served to mislead and dissuade further investigation into the defective pumping equipment is insufficient. The PSR states, and the original DoDIG report also states, USACE documented the acceptance tests for all 40 hydraulic pumps with quality assurance reports (QARs) which recorded the testing parameters, including pump speeds, run times, temperature, and deviations from any of the test procedures. If only the PSR addressed these actual QA reports maybe we would not continue to delve down the same corridors of deception and misinformation. A review of the actual USACE QA reports for all acceptance testing provide a much different picture of the actual acceptance testing accomplished, or better yet, not accomplished.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
The nature and content of the official USACE hydraulic pump acceptance testing data, the nature an content of the official USACE summary/executive summary/chronology documents given to various federal investigatory agencies in the course of the various investigations, and the obvious efforts to promote false/untrue contentions in order to avert further questions regarding the operability/suitability of the hydraulic pumping equipment, is such it gives rise to serious questions about malfeasance. The need for real/viable acceptance testing is still critical, it's imperative to insure the safety and welfare of the citizens of New Orleans. Without it there is no means to ensure the hydraulic pumps will function as they are required to by contract and design – that is, survive being operated at full operating pressures/speeds (to provide as close to the minimum required flow rate) during the design storm event (apparently, per the PSR, a 10-year, 24 hour rainfall event – not the design 100-year storm event reported to Congress and the public).	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
<u>Additional/Supplemental Acceptance Testing Information.</u> The PSR makes the false finding that the hydraulic pumping equipment failures ("anomalies") were corrected and proven such by the acceptance testing documentation ("correction and retesting ...administered until the witnessed anomalies are eliminated and there are no other anomalies experienced") – as already provided in great detail in previous documentation, **nothing could be further from the truth.** In order to better 'see' the individual plethora of failure issues, recorded testing accomplished, and actual timeline involved showing an apparent lack of suitably functioning hydraulic pumping equipment, the following is provided: **Historical Hydraulic Pumping Equipment Data/Information/Field Testing For All Hydraulic Pumps At All Three Outfall Canals (17th St., London Ave., and Orleans Ave.) For January - September 2007 Timeframe Only (after all hydraulic pumps retrofitted up to end of 'acceptance testing').** The following chronology of historical hydraulic pump data, as reported by USACE, or recorded by USACE, is compiled from the following available hydraulic pumping equipment data for all hydraulic pumps at all three outfall canals • USACE reported date for successful Acceptance Testing (AT), as reported to the GAO, DoDIG and Parsons – will be annotated with yellow. • USACE reported **field vibration testing** done by company contracted to perform this task, Measurements, LLC, also will be annotated with yellow. • Additional hydraulic pumping equipment data as supplied to the GAO and DoDIG by USACE - including "Outfall Canal Chronology 8 Nov 07", "Pump Acceptance List", and "Executive Summary for GAO". Sever and/or catastrophic failure issues will be annotated in red. Minor failure issues (would likely not disable the hydraulic pump) will be annotated in grey. • All USACE recorded **Quality Assurance (QA) Reports** for the period during Acceptance Testing. Severe and/or catastrophic failure issues will be annotated in red. Minor failure issues (would likely not disable the hydraulic pump) will be annotated in grey.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
17th street Outfall Canal West Side Hydraulic Pumps **17th - 1W** 01/24/2007 Pull Pump - install new springs 03/23/2007 Install Pump 03/24/2007 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pressure pulsations were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran approximately one hour at full operating pressure. 09/04/2007 Cited as "passed" AT. However, per QA Reports: Per QA JD: ran pump for one hr at 1800 rpm and one hr at 1400 rpm (no other testing data recorded). Per QA JPB: ran pump for 1 hr at 3100 psi/1803 rpm and one hour at 2400 psi/1400 rpm (no other testing data recorded). **17th - 2W** 01/24/2007 Pull Pump - install new springs **03/24/2007** Pump run - QA on site reported pump ran approximately 20 min at between 75-80% operating pressures before emergency shutdown – high pressure hydraulic hose failed. 03/31/2007 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pressure pulsations were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran 15 min at 2/3 operating pressure and another 15 min at 95% operating pressure. **08/24/2007** Pull Leaking Pump - rope @ shaft 08/26/2007 Cited as "Passed" AT. However, per QA Report: Pump ran for 2 hr - no other testing data recorded. **09/04/2007** Ran pump for one hr at 1800 rpm and one hr at 1400 rpm and, this unit was pulsating (no other testing data was recorded). Per QA JPB: Ran pump for one hr at 2700psi/1800 rpm - water elevation at 1.5 and pump then ran approx. one hr at 2200 psi/1400 rpm. Pump experiencing vibrations during run (in high pressure hose on case drain side). This pump has a new Rineer motor installed (SN 200708266). No other testing data was recorded. **09/10/2007** Per QA's: Ran pump test yet no other pump run data recorded save vibration present in pump during run (reported as in the high pressure line on the case drain side). **17th - 3W**	**No Comment**

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
01/24/2007 Pull Pump - install new springs 03/22/2007 Install Pump 03/24/2007 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pressure pulsations were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran just over one hour at full operating pressure. **09/10/2007** Cited as "passed" AT – However, per QA Report: Recorded as ran pump test, yet no other testing data recorded save O-Ring reported as leaking and was changed out by the KTR . **17th - 4W** 01/24/2007 Pull Pump - install new springs 03/16/2007 Install Pump **03/17/2007** Pump ran – The Pump Team Leader, with QA and NOLA Operations personnel also present, reported the pump experienced a Denison hydraulic pump failure. The hydraulic pump was replaced and the pump run was resumed – pump ran 50 min at full operating pressure. 03/24/2007 Pump tested for vibration. The Company contracted to perform this task, Measurements, LLC, reported the motor and pump had acceptable levels of vibration. QA on site reported pump ran over 1.5 hours at close to full operating pressure. **09/10/2007** Cited as "passed" AT – However, per QA Report: Recorded as ran pump test, yet no other testing data recorded save Durst motor did not work properly. **17th - 5W** 01/25/2007 Pull Pump - install new springs 03/22/2007 Install Pump 03/24/2007 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pressure pulsations were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran approximately 50 min at a bit over 90% operating pressure before pump shut down due to "minor" oil leak at pump. **08/24/2007** Pull Leaking Pump - leaking at seal 08/25/2007 Install Pump **09/10/2007** Cited as "passed" AT – However, per QA Report: Recorded that ran pump test yet no testing data recorded.	No Comment
17th - 6W 01/25/2007 Pull Pump - install new springs 03/16/2007 Install Pump 03/17/2007 Run Pump – The Pump Team Leader, with QA and NOLA Operations personnel also present, reported the pump ran 50 min at full operating pressure. 03/24/2007 Pump tested for vibration. The Company contracted to perform this task, Measurements, LLC, reported the pump had vibration issues – believed to be caused by an imbalance in the impeller (caused by either damage to the impeller or material caught on the impeller). Recommended this pump should be retested. QA on site reported pump ran a bit over two at full operating pressure. **09/10/2007** Cited as "passed" AT – However, per QA Report: Recorded that ran pump test yet no testing data recorded. **17th - 7W** 03/2/2007 Install Pump 03/10/07 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pulsation or excessive vibration or noise were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran 1.5 hours at almost full operating pressures. 03/24/2007 Pump tested for vibration. The Company contracted to perform this task, Measurements, LLC, reported the motor and pump had acceptable levels of vibration. QA on site reported pump ran 45 min at full operating pressure. **08/24/2007** Cited as "passed" AT – However, per QA Report: Pump ran for 1.5 hr - no other testing data recorded. 09/13/2007 or 09/14/2007 Reported ran pump (for one hr) till ran out of water - heat sensor installed on unit. No other run data recorded	**No Comment**

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
17th - 8W 03/5/2007 Install Pump 03/10/07 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pulsation or excessive vibration or noise were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran 1.5 hours at almost full operating pressures. 03/24/2007 Pump tested for vibration. The Company contracted to perform this task, Measurements, LLC, reported the motor and pump had acceptable levels of vibration. QA on site reported pump ran 75 min at full operating pressure. **09/13/2007 or** **09/14/2007** Ran pump (for one hr) till ran out of water - no other run data recorded. Email from RE stated Pump ran for 1 hr @ 3200 psi and pump close to overheating during run. **09/15/2007** Cited as "passed" AT – However, per QA Report: Recorded that ran pump test yet no testing data recorded. **17th - 9W** 03/5/2007 Install Pump 03/10/07 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pulsation or excessive vibration or noise were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran 1.5 hours at almost full operating pressures. **09/14/2007** Cited as "passed" AT – However, both QA's (JPB & JD) at site and filed QA reports yet no documentation of any testing done for this unit. In addition, one QA even documents/reports heat sensor installed on neighboring unit 7W.	**No Comment**
17th - 10W 03/5/2007 Install Pump 03/10/07 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pulsation or excessive vibration or noise were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran 1.5 hours at full operating pressures. **09/14/2007** Cited as "passed" AT – However, both QA's (JPB & JD) at site and filed QA reports yet no documentation of any testing done for this unit. In addition, one QA even documents/reports heat sensor installed on neighboring unit 7W. **17th street Outfall Canal East Side Hydraulic Pumps** **17th - 1E** 01/31/2007 Pull Pump - install new springs 03/26-29/07 Install Pump 03/31/2007 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pressure pulsations were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran 15 min at 70-75% operating pressure, 15 min at 95% operating pressure., and about 10 min at ¾ operating pressure. **09/07/2007** Cited as "passed" AT – However, per QA Report: "lower gates…tested 6-pumps on the east side..." - no pump No's or any testing data. Per RE email: Ran pump test for pumps 1-6E. **17th - 2E** 01/31/2007 Pull Pump - install new springs 03/26-29/07 Install Pump 03/31//2007 QA on site reported pump ran approximately 30 min at operating pressures between 2500-3200 psi. **09/07/2007** Cited as "passed" AT – However, per QA Report: "lower gates…tested 6-pumps on the east side..." - no pump No's or any testing data. Per RE email: Ran pump test for pumps 1-6E.	**No Comment**

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
17th - 3E 01/31/2007 Pull Pump - install new springs 03/26-29/07 Install Pump 03/31/2007 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pressure pulsations were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran approximately 30 min at operating pressure between 2400-3200 psi. **08/26/2007** Cited as "passed" AT – However, per QA Reports: Per QA JD: Pump ran for 1.5 hr - no other testing data recorded. Per QA JPB: Pump ran 2 hr at 1400 rpm - no other testing data recorded. 09/07/2007 Recorded ran pump, however, no pump run data recorded. Per QA Report: "lower gates...tested 6-pumps on the east side..." - no pump No's or any other run/test data recorded. Per RE email: Ran pump test for pumps 1-6E. **17th - 4E** 01/31/2007 Pull Pump - install new springs 04/02/2007 Install Pump 04/06(5)/2007 Run Pump - Run Pump – QA on site reported pump ran a bit over 30 min at full operating pressure. **09/07/2007** Cited as "passed" AT – However, per QA Report: "lower gates...tested 6-pumps on the east side..." - no pump No's or any testing data. Per RE email: Ran pump test for pumps 1-6E. **17th - 5E** 01/31/2007 Pull Pump - install new springs 03/26-29/07 Install Pump 03/31/2007 Pump tested for vibration and for pressure pulsation in the hydraulic lines. The Company contracted to perform this task, Measurements, LLC, reported no pressure pulsations were detected on the motor and pump had acceptable levels of vibration. QA on site reported pump ran approximately 40 min at operating pressure between 1500-3200 psi. **09/07/2007** Cited as "passed" AT – However, per QA Report: "lower gates...tested 6-pumps on the east side..." - no pump No's or any testing data. Per RE email: Ran pump test for pumps 1-6E.	No Comment

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
17th - 6E 01/31/2007 Pull Pump - install new springs 04/02/2007 Install Pump 04/6(5)/2007 Run Pump – QA on site reported pump ran 40 min at almost 90% operating pressure. **09/07/2007** Cited as "passed" AT – However, per QA Report: "lower gates…tested 6-pumps on the east side..." - no pump No's or any testing data. Per RE email: Ran pump test for pumps 1-6E. **17th - 7E** 03/16/2007 Install Pump 03/17/2007 Pump ran - The Pump Team Leader, with QA and NOLA Operations personnel also present, reported the pump ran 55 min at full operating pressure. **08/24/2007** Pull Leaking Pump - pipe leak 08/25/2007 Install Pump 08/26/2007 Cited as "Passed" AT. However, per QA Report: Pump ran for 1.5 hr - no other testing data recorded. **17th - 8E** 03/17/2007 Install Pump 03/17/2007 Pump ran - The Pump Team Leader, with QA and NOLA Operations personnel also present, reported the pump ran 55 min at full operating pressure. **09/15/2007** Cited as "passed" AT – However, per QA Report: Pump recorded as being run, however, no testing data was recorded. **London Avenue Outfall Canal West Side Hydraulic Pumps** **London - 1W** 03/15/2007 Pull Pump - Install new springs 04/17-18/2007 Install Pump 04/19/2007 Run Pump - QA on site reported pump ran 5 min at almost full operating pressure. **08/03/2007** Cited as "passed" AT – However, per QA Report: Pump recorded as being run, however, no testing data was recorded.	No Comment

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London - 2W 03/15/2007 Pull Pump - Install new springs 04/17-18/2007 Install Pump 04/19/2007 Run Pump - QA on site reported pump ran approximately 10 min at 75% operating pressure. **08/03/2007** Cited as "passed" AT – However, per QA Report: Pump could not achieve operating pressure of 3000 psi – no other testing data recorded. And, per RE email there was an attempt to run this pump but after approx 1/2 an hour pump run aborted due to gear drive temperature problem. Per additional NOLA Field personnel email: Pump reported as failing after 1/2 hour of testing due to gear oil in the Durst drive overheating. 8/16/2007 Per QA reports (both QA's), pump reported as run for two hours, however, no run/test data was recorded. **London - 3W** 03/15/2007 Pull Pump - Install new springs 04/17-18/2007 Install Pump 04/19/2007 Per QA on site, could not run pump as Durst drive oil too low (2 quarts). 05/03/2007 Pump ran - QA on site reported pump ran almost 15 min at between 500-3200 psi (15-100% operating pressure). **08/03/2007** Cited as "passed" AT – However, per QA Report: Pump reported completing two hour test, however, no other testing data was recorded. 8/16/2007 Per QA report pump run to help prime 2-W and 4W – however, no pump run data was recorded save a hydraulic oil leak at Denison pump flange and an engine oil leak by starter. **London - 4W** 03/15/2007 Pull Pump - Install new springs 04/17-18/2007 Install Pump 04/19/2007 Run Pump - QA on site reported pump ran approximately one hour at almost full operating pressure. **08/05/2007** Cited as "passed" AT – However, per QA Report: Pump run for test but test failed after 35 min due to oil cooler motor not functioning. Also, hydraulic oil leak at the snap tight fitting. Per RE email: pump shut down due to Durst drive oil temp problem. 8/16/2007 Per QA reports pump run for two hours yet no other data recorded save there was a hydraulic leak in panel and the GOCM would not shut down.	No Comment

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
London- 5W 03/15/2007 Pull Pump - Install new springs 04/17-18/2007 Install Pump 04/19/2007 Run Pump - QA on site reported pump ran approximately 45 min at almost full operating pressure. **07/26/2007** Cited as "passed" AT – However, both QA's on site yet no data recorded for any pump runs including this pump. 08/05/2007 Per QA report pump run to assist with priming 4-W, yet no run data recorded. 08/16/2007 Per QA report pump ran to help prime 2-W and 4W – yet no run data recorded. **London- 6W** 03/15/2007 Pull Pump - Install new springs 04/17-18/2007 Install Pump 04/19/2007 Run Pump - QA on site reported pump ran approximately 30 min at almost full operating pressure. **07/26/2007** Cited as "passed" AT – However, both QA's on site yet no data recorded for any pump runs including this pump. **London Avenue Outfall Canal East Side Hydraulic Pumps** **London - 1E** 03/03/2007 Pull Pump - Install new springs 05/01-02/2007 Install Pump 05/03/2007 Pump ran - QA on site reported pump ran almost 10 min at between 70-90% operating pressure. 08/03/2007 Per QA on site nothing recorded for this pump even though recorded pump runs for other on site pumps. Per RE email there was an attempt to run this pump but no result reported. Per other NOLA field personnel, pump "passed" yet no other data/info provided… **08/07/2007** Cited as "passed" AT – However, per QA Report: Pump reported as ran for two hours - no other testing data recorded.	No Comment

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
London - 2E 03/03/2007 Pull Pump - Install new springs 05/01-02/2007 Install Pump 05/03/2007 Pump ran - QA on site reported pump ran almost 15 min at between 70-90% operating pressure. **08/03/2007** Per QA JD: Pump was run and was incapable of reaching 3000 psi. Per RE email: Pump run at "reduced speed in order to get 1E past test". Also Per RE. email : 2E had "hydraulic oil pressure problem" that precluded it from running with 1E & 3E. Per additional NOLA Field personnel email: Pump reported as failing testing due to a sudden drop in hyd. Oil pressure (to 2400 psi) (likely "a Denison fail **08/07/2007** Cited as "passed" AT – However, per QA JPB: Pump run for 2 hours - no other testing data recorded. Per QA JD: fixed by-pass and run pump for 2 hrs - no other testing data recorded **London - 3E** 03/03/2007 Pull Pump - Install new springs 05/01-02/2007 Install Pump 05/03/2007 Pump ran - QA on site reported pump ran 10 min at almost full operating pressure. **08/03/2007** Per QA on site nothing recorded for this pump even though recorded pump runs for other on site pumps. Per RE email "there was an attempt to run this pump but run aborted as pump experienced an oil circulation problem". Per additional NOLA Field personnel email: Pump reported as failing testing due to gear oil in the Durst drive overheating **08/07/2007** Cited as "passed" AT – However, per QA report: Pump run for 2 hours - no other testing data recorded Per QA JPB: Pump run for 2 hours - no other run data recorded. Per QA JD: nothing for this pump recorded (even though pump next to it was recorded as being tested (2-E). Per RE email: lowered gates, pump passed 2 hr acceptance test. **London - 4E** 03/03/2007 Pull Pump - Install new springs 05/01-02/2007 Install Pump 05/03/2007 Pump ran - QA on site reported pump ran almost 50 min at between 70-95% operating pressure. **08/05/2007** Cited as "passed" AT – However, per QA report: Pump run for 2 hours - no other testing data recorded	No Comment

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
London - 5E 03/03/2007 Pull Pump - Install new springs 05/01-02/2007 Install Pump 05/03/2007 Pump ran - QA on site reported pump ran 45 min at between 70-95% operating pressure. **08/05/2007** Cited as "passed" AT – However, per QA report: Hydraulic system would not pump – the hydraulics stayed in the by-pass mode. L-6E was started to take over L-5E's place. However, QA report goes on to state L-5E passed the 2 hour test. 08/07/2007 Per QA report pump run and oil cooler not functioning - thermostat replaced. 08/17/2007 Per QA reports pump tested for 2 hours, yet no testing data recorded. **London - 6E** 03/03/2007 Pull Pump - Install new springs 05/01-02/2007 Install Pump **05/03/2007** Pump ran - QA on site reported pump ran almost 15 min at 75% operating pressure – QA reported hydraulic too low, starter kept engaging, engine won't rev, idle problem. **08/05/2007** Cited as "passed" AT – However, per QA report: This pump was started to take over L-5E's place because L-5E would not pump. No testing data was recorded for this pump. 08/17/2007 Per QA report pump run to provide prime for 5E but no run data recorded. **Orleans Avenue Outfall Canal West Side Hydraulic Pumps** **Orleans - 1W** 03/22/2007 Pull Pump - Install new springs 05/16/2007 Install Pump 05/31/2007 Run Pump **07/05/2007** Cited as "passed" AT – However, per QA report: pump test was run for 1.5 hours until water level was too low – no other pump testing data was recorded.	No Comment
Orleans - 2W 03/22/2007 Pull Pump - Install new springs 05/21-23/2007 Install Pump 05/31/2007 Run Pump **08/17/2007** **Per QA** pump pulled due to mechanical seal leaking. **08/22/2007** Cited as "passed" AT – However, no QA reports to view. **Orleans - 3W** 03/22/2007 Pull Pump - Install new springs 05/21-23/2007 Install Pump 05/31/2007 Run Pump **08/22/2007** Cited as "passed" AT – However, no QA reports to view. **Orleans - 4W** 03/21/2007 Pull Pump - Install new springs **05/25/2007** Pump pulled – Rineer motor replaced. 05/30/2007 Install Pump 05/31/2007 Run Pump **06/27/2007** Cited as "passed" AT – However, per QA report: pump reported as "passed" pump test yet no testing data recorded. **Orleans - 5W** 03/21/2007 Pull Pump - Install new springs 05/21-23/2007 Install Pump 05/31/2007 Run Pump **06/27/2007** Cited as "passed" AT – However, per QA report: pump reported as "passed" pump test yet no testing data recorded.	No Comment

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	APARIQ Comments about Validity
Orleans Avenue Outfall Canal West Side Hydraulic Pumps **Orleans - 1E** 05/12-13/2007 Install Pump 05/15/2007 Pump run – QA on site reported pump ran a bit over 15 min at 95% operating pressure. 05/31/2007 Run Pump **07/31/2007** Cited as "passed" AT – However, QA on site (JD) yet no data recorded for any pump runs including this pump, even though other work was recorded done on the site. **Orleans - 2E** 05/12-13/2007 Install Pump 05/15/2007 Pump run – QA on site reported pump ran almost 15 min at almost full operating pressure. 05/31/2007 Run Pump **07/31/2007** Cited as "passed" AT – However, QA on site (JD) yet no data recorded for any pump runs including this pump, even though other work was recorded done on the site. Per RE email: this pump was run for 10 min and then shut down due to a suspected internal hydraulic oil leak in the pump. **08/16/2007** Per QA report pump pressure tested and leak found between top-hat and Rineer motor – one of the O-Rings on the high pressure line is also leaking. **08/17/2007** Per QA report pump pressure tested and gasket between top-hat and Rineer motor found leaking. Pump retrofitted with lifting eye so Rineeer motor can be pulled and repaired **Orleans - 3E** 05/12-13/2007 Install Pump 05/15/2007 Pump run - QA on site reported pump ran almost 15 min at almost full operating pressure. 05/31/2007 Run Pump **07/31/2007** Cited as "passed" AT – However, QA on site (JD) yet no data recorded for any pump runs including this pump, even though other work was recorded done on the site. Per RE email: pump run test was attempted but shut down automatically after 45 min. – problem thought to be an engine cooling thermostat.	No Comment
Orleans - 4E 05/10/2007 Pull Pump - Install new springs 05/15/2007 Install Pump 05/15/2007 Pump run - QA on site reported pump ran almost 15 min at almost full operating pressure. 05/31/2007 Run Pump **06/19/2007** Cited as "passed" AT – However, per QA report: pump reported as ran yet no testing data recorded. **Orleans - 5E** 05/12-13/2007 Install Pump 05/15/2007 Pump run - QA on site reported pump ran 20 min at almost full operating pressure. 05/31/2007 Run Pump **07/31/2007** Cited as "passed" AT – However, QA on site (JD) yet no data recorded for any pump runs including this pump, even though other work was recorded done on the site. **08/17/2007** Per QA report pump pulled to repair cracked seal - mechanical seal leaking 08/21/2007 Pump cited as installed and tested, yet no other data recorded nor QA report to view.	No Comment
Section 3.2 - Hydraulic Pumping Equipment Failure Issues Hydraulic pumping equipment failure issues have not been resolved – serious and potentially catastrophic vulnerability issues remain unaddressed. First, it needs to be reiterated again here, the PSR employees the faulty premise our hydraulic pumping equipment has a life span of 5-7 years. This is a fundamentally flawed premise and renders the findings in the PSR that rely on same without merit/credibility. The following unresolved failure/potentially catastrophic vulnerability issues will be addressed:	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
3.2.1 - Acceptance testing. Please see Section 3.1 "Lack of Credible/Factual Acceptance Testing". The actual potential vulnerabilities that could lead to catastrophic failure of the hydraulic pumping equipment is extensive – inability to assess the functionality of the installed hydraulic pumping equipment due to insufficient run times at appropriate speeds/pressures, including a lack of credible acceptance testing, has resulted in the inability to establish the mechanical integrity of the hydraulic pumps. There has never been a suitable baseline mechanical integrity established for the hydraulic pumps. As has been established in previous Sections, the lack of load testing and suitable acceptance testing has allowed the continuation of systemic and predictable hydraulic pumping equipment system failures. The data is clear that when attempts are made to run the hydraulic pumps they demonstrate excessive and serious hydraulic system failures – including failures that have been previously been cited as "cured". **15** of the **40** hydraulic pumps previously cited as retrofitted with more robust Rineer motors and proclaimed ready for duty during the 2006 hurricane season are turned on and run for very limited run times/speeds only to experience a variety of catastrophic failures, including excessive vibrations/pulsations, and a plethora of Rineer motor failure issues. **8** of the **40** hydraulic pumps are cited as "passing" the acceptance testing and are run at and shortly thereafter (couple weeks) at very limited run times/speeds only to experience a variety of catastrophic failures. The obvious is, if a hydraulic pump "passes" in some fashion, acceptance testing or hydraulic system corrective measures, then simply turning the hydraulic pump on shortly thereafter should **not** result in **any** catastrophic failures, and, if they do, then something needs to be done to ensure adequate acceptance testing is reimplemented and whatever "fix" was employed is quickly followed up with suitable mechanical integrity testing (a.k.a. acceptance testing).	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
It should be noted, none of the hydraulic pumps has been subjected to full operating speeds/pressures for extensive periods of time – actual hydraulic pump runs have been extremely limited in time/speeds. One has to ask; if the failures seen during these limited hydraulic pumps runs are as demonstrated, then what can one expect if these same hydraulic pumps are subjected to a real life event (pumps required to run at full operating speeds/pressures for extensive periods of time)? I believe when increasing the run times and speeds pressures from limited to full the true overall failure rate will not be linear, it is likely exponential (things will be even worse off). In addition, there are current failure issues that have gone unaddressed with the hydraulic pumping equipment. These failure issues demonstrate clearly there are current and present dangers to hydraulic pump catastrophic failure should these pumps be required to operate at full operating speeds/pressures (full flow) for extended periods of time (100-year storm event) – e.g. O-Ring/Seal failures, Durst pump drive failures, excessive hydraulic oil temperatures, etc.. Even should these problems be addressed in the future there will still remain the need to perform suitable testing to insure the mechanical integrity of the hydraulic pumps.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
3.2.2 - O-Ring/Seal failure issues. Please see Section 3.1 "Lack of Credible/Factual Acceptance Testing". This issue has gone <u>unaddressed</u> and represents, in my opinion, an extremely serious problem. Empirically, the evidence shows that the hydraulic pumps have from day one demonstrated a propensity of experience O-Ring/Seal failures that are catastrophic in nature. The empirical evidence also demonstrates this is a failure mode that is ongoing and currently present in the hydraulic pumps. Even with the extremely limited field documentation available to me, in just a 3.5 month period during 2007, during very limited hydraulic pumps runs (speeds/time), **8 of the 40** hydraulic pumps experienced O-Ring/Seal failures requiring repair in the field – a repair that could not be accomplished during an actual hurricane event. And, during factory testing, **3 of the 9** hydraulic pumps actually placed in the testing tank (pumped water) experienced what is most likely O-Ring/Seal related failures (I witnessed one such O-Ring failure (saw the failed O-Rings), and two of the other hydraulic pump unit failures were noted as accompanied by loss of hydraulic oil into the testing tank). I am positive, actual O-Ring/Seal failures are likely far more extensive than even reported here. At issue is the actual pressure rating of the O-Rings/Seals, the excessive hydraulic oil temperatures these O-Rings/Seals have been exposed to, and the likely faulty installation method employed during the commission of the hydraulic pumps in the field. From the evidence available, turn the hydraulic pumping equipment on, even for very limited run times and speeds/pressures, and you will see catastrophic O-Ring/Seal failures develop throughout the pump run process. The evidence does not support this failure issue simply disappeared, in fact, quite the contrary. Finally, there has never been any suitable mechanical integrity testing nor suitable/credible/factual acceptance testing accomplished that would provide this failure mode is anything but still present and unaccounted for.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
3.2.3 - Hydraulic system design deficiencies. <u>The Hydraulic Reservoir is Undersized</u> We have a 180 gal hydraulic oil reservoir, an inlet flow of 340 GPM, and NO baffles in hydraulic oil reservoir. We have issue on turbulent flow inside the hydraulic oil reservoir and inadequate heat dissipation abilities. Hydraulic oil cooler on the side of the hydraulic pump assembly sits 2' further out of the water due to design flaw, let alone the likely inadequate design for the hydraulic oil cooler, let alone the bath water temperature of the water in the canal, and, let alone the inappropriate size of the hydraulic coil reservoir to adequately dissipate excessive heat on its own. This hydraulic system design deficiency may in fact explain the voluminous number of O-Ring/Seal failures discussed in the previous Section and throughout this Response document.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
The Durst Pump Drive is Undersized Relevant MWI installed and operational hydraulic pump components: • Caterpillar 3412E DITTA rated 735 hp at 1800 rpm diesel engine • Durst 2PD10 1:1 ratio Pump Drive A review of the spec sheets for the supplied Caterpillar diesel engine and Durst pump drive and the Durst application sheet, indicates the output torque of the Caterpillar diesel engine exceeds the maximum allowed input torque of the Durst pump drive (*please see attached spec sheets and application sheet*). Maximum input torque for the 2PD10 Durst pump drive is **1995 lb ft**. Output torque for the Caterpillar 3412E diesel engine is **2145 lb ft times a service factor**. The Caterpillar **service factor** is **1.5** as these units likely experience uniform loading and are designed to function as components in emergency pumping equipment operated during hurricane events – a direct hit hurricane event obviously last over 3 hours, and more likely far exceeds 10 hours.	Comment of Complaintant to the Left is Valid &
As such, using a service factor of 1.5, the output torques from the Caterpillar diesel engine is **3218 lb ft** while the maximum input torque allowed by the Durst pump drive is **1995 lb ft**.	Parsons Report is Misleading & Partially Incorrect
However, of important note, as evidenced from historical hydraulic pump runs in the field (e.g. recorded SCADA data for outfall canal pump runs during Hurricane's Gustov and Ike) the hydraulic pumps spend the bulk of their time (more than ½) running at speeds of between 1250-1550 rpm, and the rest of the time at even lower speeds. This is important because the lower the prime mover speeds the higher the prime mover output torque - e.g. at 1400 rpm the Caterpillar output torque is 2511 lb ft – times a service factor of 1.5, the input torque the Durst pump drive sees is 3767 lb ft, or almost **twice the maximum allowed.**	

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	**APARIQ Comments about Validity**
History of My Personal First Hand Knowledge Regarding This: The Contractor (MWI) informed me during a trip visit to their manufacturing facility in Deerfield Beach, Fl., they were changing the supplier for the pump drive – from a Funk pump drive to a Durst pump drive. They informed me they could not get 37 Funk pump drives as they had originally planned and the USACE Contracting Officer would not allow them to supply pump drives from multiple suppliers. As MWI had not provided USACE any specifications for the Durst pump drive I asked them to provide such – they did not comply even when I elevated this request to the head of the TFG pump team. The only info I was able to obtain was a service manual for the Durst pump drive that I found in their offices and asked them to copy for me (*see attached*). During factory testing I recorded elevated temperatures on the outside of the Durst pump drives (over 200 ºF). After witnessing numerous GOCM burning out and elevated temperatures on the outside casing and lines (200+ ºF), numerous Denison hydraulic pumps experience catastrophic failure, and numerous hydraulic lines melt/fail, I bought a digital temperature gun to monitor outer temperatures of these various hydraulic components as MWI was refusing to monitor and record these things on their own. In general, I noticed that the GOCM experienced failure quite rapidly when temperatures exceeded 200+ ºF on the lines leading to the GOCM and/or the outer body of the GOCM. Related to this, when excessive temperatures were seen at the GOCM a corresponding elevation in temperatures would also be seen on the outside of the Durst pump drive (also as high or exceeding 200 ºF). I suspected multiple factors in the failures I was witnessing, including the Durst pump drive (all components were suspect), and requested MWI to provide me the complete engineering calculations for the entire hydraulic pumping system. At no time during my tour of duty on this project did MWI comply with these request. I made this request over a dozen times, elevated it to the head of the TFG pump team, and still never was given this critical info. On 13 May 2006 this request was even elevated to an outside USACE engineering support team (the infamous Farkus Team). They also requested this same info as follows:	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
MWI should be requested to furnish a complete set of system computations for equipment sizing from the water pump to the diesel engine drive. All current components and pipe sizes should be used. Equipment data sheets should be provided for each piece of equipment used which indicate the exact values being used in the computations. This shall include curves for both the hydraulic motor and diesel engine to determine delivered power (torque) at various operating speeds.	Comment of Complaintant to the Left is Valid

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	**APARIQ Comments about Validity**
Sometime later MWI responded to this request as follows: "**In process.**" This cited request and answer is documented in Attachment 2 of the MVN Independent Team Report (ITR) (*please see attached*). I have since learned that on 19 May 2006 MWI (Jim Endres – lead engineer for MWI) sent the head of the USACE TFG pup team (Jim StGermain) a complete set of hydraulic system calculations – I was never cc'd on any of this info, even when this same email with attached calculation sheet was then forwarded to a separate engineering team within USACE. *This email with attached hydraulic pump system calculations sheet is attached.*	
This 19 May 2006 system calculations sheet clearly shows MWI arrived at an assumed maximum overall hydraulic system pressure of **2500 psi** with a corresponding required horsepower supplied by the diesel engine of **531 hp** – the diesel engine actually supplied by MWI delivers **735 hp.** This email with attachment was provided to me by outside parties during mid to late 2008.	Comment of Complaintant to the Left is Valid
In addition, during the period of the USACE MVN ITR (September 2006 through May 2007) the ITR lead technical engineer asked for these same engineering system computations. MWI took more than a month to reply to him with 6 or so excel spreadsheets with various system calculations, and, one of the USACE engineers to receive the 19 May 2006 hydraulic system calculations sheet forwarded same to him during this time period. The excel spreadsheets MWI provided USACE were forwarded to me in November 2006 by the lead technical engineer for the ITR (*please see attached email with cited spreadsheet attachments*). Of important note: there does not appear to be a specific analysis of the diesel engine output torque as relates to the maximum allowed input torque for the pump drive. Also, in the USACE MVN ITR the main focus of the analysis, with regards to the Caterpillar engine and the Durst pump drive, is the related lack of a clutch starting system as it affected the hydraulic piping (shock loading of the hydraulic pipe), not the miss-matched prime mover and drive train systems. Regarding the Durst pump drive, MWI considered it to be adequately designed and did not specify any limitations/changes placed on the system during operations. In addition, to my knowledge, USACE (the Contracting Officer) did not have a differing opinion than MWI on this matter. This characterization of blanket suitability is consistent with how MWI characterizes/ed most all hydraulic components of their hydraulic pumping system, regardless of the varied and voluminous hydraulic pump component failures and the refusal/failure of MWI to address same (determine root cause in lieu of simply removing and replacing the offending/failed hydraulic component with no forensic or engineering analysis). In addition, the blanket acceptance of MWI's assessments of hydraulic pumping equipment suitability was also consistent with how USACE TFG/TFH personnel addressed these failure issues/engineering inconsistencies.	& Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	**APARIQ Comments about Validity**

Additional Information Relevant to This:
 	
There is existing documentation I have obtained that indicates there have been severe and extensive problems associated with Durst pump drives and GOCM's during subsequent field operations. Specifically, Quality Assurance (QA) reports from the short period of time during 'acceptance' testing (June-September 2007) indicates there were numerous failure issues/problems associated with the Durst pump drives and GOCM's. In addition, emails from USACE personnel in the field from a three day time period speak to these Durst pump drive and GOCM failure issues – excerpts as follows:
 	
Email sent on 03 August 2007 from the USACE Resident Engineer to the TFH pump team stating:
 	
`Pump 3E had an oil circ pump problem, so we're back to running 2E at a reduced speed in order to get 1E past the test.`
 	
Email sent on 03 August 2007 from the USACE Resident Engineer to the TFH pump team stating:
 	
`Pump no 2W had a gear drive temp problem after 25 min, so we're shutting it down and running 1W.`
 	
Email sent on 04 August 2007 from a USACE Construction Representative in the field to the TFH pump team stating:
 	
`Pump 2w failed after 1/2 hour because the gear oil in the Durst overheated.`
 	
...
 	
`Pump 3e failed because the gear oil in the Durst overheated.`
 	
Email sent on 05 August 2007 from the USACE Resident Engineer to the TFH pump team stating:
	No Comment

`Pump 4W had a Durst drive oil temp problem and only ran for half an hour. It also developed a small leak at a coupling on the platform at the PU.`
 	
Email sent on 05 August 2007 from the USACE Resident Engineer to the TFH pump team stating:
 	
`We appear to have an epidemic of Durst drive oil circulation pump problems. We're shutting down the east pump test and moving to test two west pumps.`
 	
3.2.4 - Gear Oil Circulation Motor/Durst Drive failure issues.
 	
Please see Section above – and, also where USACE Field Resident Engineer characterizes the Durst drive failures seen during August 2007 acceptance test runs as "epidemic" in nature.
	No Comment

3.2.5 - High pressure hydraulic pipe failure issues. The issue of hydraulic piping supplied by the contractor not in accordance with accepted industry standards has not been sufficiently addressed. The PSR makes no statement they have analyzed the hydraulic pipe and arrived at an official "fit-for-service" designation. In fact, the PSR makes no attempt to address the complete issue as I have brought forward in my original response to the first DoDIG Report. Simply implying a suitability based on vague and incomplete analysis is not sufficient. Using the numbers as provided in the PSR still yields pipe thicknesses that are wholly unsuitable, regardless of the obvious problems that also went unaddressed.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

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Recapping what has been discussed prior:

There is no mention in the PSR what other considerations were made in the apparent "analysis" – missing would be some consideration for a significant additional loss of pipe thickness due to the ensuing sand blasting the hydraulic steel pipe is/was to undergo for subsequent painting. In addition, the environmental conditions the pipe has been subject to appear to have been glanced over – the pipe has been subject to a very harsh corrosive environment – installed directly over salty/brackish water for more than three (3) years.

Regardless, using Parsons ridiculously low value for corrosion would still yield our pipe is still unsuitable:

$$t_{min} = \frac{PD}{2(SE + PY)} \quad (\text{for } t_{min} < D/6)$$

S = 16,000 psi *Stress value for material* from Table A-1, Basic Allowable Stresses in Tension for Metals, ASTM B31.3 (16ksi for this temperature range)

E = 1.0 *Quality factor* from Table A-1, Basic Allowable Stresses in Tension for Metals, ASTM B31.3 (seamless pipe)

D = 3.5" *Outside diameter of pipe*

Y = 0.4 *Coefficient* from Table 304.1.1 (valid for t < D/6) - temp < 900 F

Therefore, t_{min} **= 0.3052326"**

Add Corrosion Allowance (CA) as provided by Parsons:

$t_{corr} = t_{min} + CA = 0.3052326" + 0.02" =$ **0.325233"**

Adjust For Mill Tolerance:

$t_{total} = t_{corr} / 0.875 = 0.325233"/0.875 =$ **0.3717"**

Determine the appropriate Pipe Schedule from table: for 0.3717" wall thickness, Schedule 160 = 0.438" wall thickness – our pipe is Schedule 80 = 0.300 "...**meaning, our Schedule 80 pipe is undersized.**

FYI, our steel pipe is from Spain – I decided to check the mill certs that came with the pipe, and, also decided to have our site piping contractor cut a random piece of pipe to check the mill tolerances. As I suspected, the pipe that is used in the construction of our hydraulic pipe physically exhibited the over and under pipe thicknesses specified by the mill certs, a +- 0.375".

Not only does ASME B31.3 required an adjustment for mill tolerance, but my own physical inspection of the pipe verified the hydraulic pipe exhibited areas of thickness less than 0.300" and down as far as 2.625".

In addition, and extremely important, USACE's high pressure hydraulic pipe was fabricated using the materials MWI provided – this resulted in the pipe being fabricated utilizing **socket weld fitting and welding**. Per the ASTM Code, **socket welds cannot be used for high pressure piping** (to determine if high pressure ASME B31.3 references ASTM B16.5 where high pressure equates to 2500 psi and over). USACE's pipe experiences were in excess of 3200 psi. Therefore, the hydraulic pipe as fabricated using the materials MWI provided violates the Code. Nowhere in the PSR is this issue addressed.

Comment of Complaintant to the Left is Valid

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RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons SECTION 3 – Additional/Supplemental Rebuttal to the PSR	APARIQ Comments about Validity
3.2.6 - Excessive hydraulic system pressures and related hydraulic component failures. The issue of excessive hydraulic system pressures and related hydraulic component failures have not been addressed sufficiently nor resolved. The PSR also states to cause less undue stress on the hydraulic pumping system just run the hydraulic systems at lower pressures, problem fixed – in actuality; this is not the appropriate engineering solution to this problem (see above discussion on undersized Durst pump drive).	Comment of Complaintant to the Left is Valid
Section 3.3 - Hydraulic Pump Runs During Hurricanes Gustav and Ike. A vast mount of discussion on this subject is found in previous Sections. Please see the following: • Section 1 – pages 7 to 10. • Section 2 – pages 14 to 15 • Section 2 – pages 34 to 39 Highlighting something that is quite important, and likely to get lost in the vast amount of information being presented, is the fact the PSR bases its analysis and findings on the faulty premise the hydraulic pumping equipment was built for a design rainfall storm event of 10-years – the true/factual design storm event for the hydraulic pumping equipment, as reported to Congress and the public, is for a 100-year storm event (e.g. Hurricane Rita). Any and all analysis proffered using this faulty basis is without credibility. Also, recapping some additional important aspects of this issue: The hydraulic pump runs during Hurricanes Gustav and Ike were not as reported in the PSR. None of the pump run data reported in the PSR constitutes factual/truthful reporting. Actual hydraulic pumps run data provides and proves a plethora of contradictory conclusions to the PSR – including a prima facia case for official USACE reporting forward that constitutes an organized white wash intended to provide cover as to the true condition of the hydraulic pumping equipment. Hydraulic pumps, for both hurricane events, were not responsible for establishing and maintaining Safe Water Levels (SWL). Hydraulic pumps were used sparingly and intermittently, run at significantly reduced pressures/speeds, and run for very limited amounts of time. Hydraulic pump runs, for both hurricane events, can at best be characterized as "exercise"/"demonstration" type pump runs, and, proved nothing as to the functionality and operability of the hydraulic pumps. Direct Drive pumps, for both Hurricane events, were the workhorses for all pump runs accomplished. Direct drive pumps were responsible for establishing and maintaining SWLs. Direct drive pumps were used extensively and comprise the lion's share of total pump run time.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
The facts, and SACDA data, show storm surge as experienced at the gated closure structures, for hurricane Gustav **never** reached or exceeded the Safe Water Level (SWL) - had the gates never been closed for this event there would have been **no** adverse affect to the city of New Orleans from flooding. In addition, during hurricane Ike, the facts, and SACDA data, show storm surge as experienced at the 17th Street gated closure structures **never** reached or exceeded the Safe Water Level (SWL). Had the gates never been closed at 17th Street for this event there would have been **no** adverse affect to the city of New Orleans from flooding. And, during hurricane Ike, the facts and SCADA data show storm surge did reach the SWL at London Avenue (5.0') with a maximum surge water level of 5.39'. However, what is not reported in the PSR is during Hurricane Ike the hydraulic pumps were hardly run at all – they were relegated to 'exercise' type runs. At London Avenue it was the direct drive pumps that were utilized to initially bring canal water levels down, and, it was direct drive pumps that were utilized to maintain these same water levels prior to any hydraulic pumps ever being turned on and operated.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

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It is important a complete reading of the above cited Sections is accomplished.
 	
The following is intended to graphically augment the data/documentation that is presented previously in this response document.
 	
Graphical representation of actual hydraulic pump runs during both Hurricane Gustav and Ike – actual graphs are unable to copy/paste correctly into this document. Please see separately the following attached files:
 	
• Gustov Pump Run Graphs.xls
  ○ [Sheet 1] 17th Pump Run data – Gustov
  ○ [Sheet 2] London Pump Run Data - Gusatov
• Canal Level & time vs Hyd & DD Pump Runs - Gustov.xls
  ○ [Sheet 1] 17th St. Gustav
  ○ [Sheet 2] London Ave. Gustav
• Ike - Graph.xls
  ○ [Sheet 1] Ike Pump Run Data For 17th
  ○ [Sheet 2] Ike Pump Run Data For London
• Canal Level & time vs Hyd & DD Pump Runs -IKE.xls
  ○ [Sheet 1] 17th St. – IKE
  ○ [Sheet 2] London Ave. - IKE
The above graphical representation of actual hydraulic pump runs during both Hurricane Gustav and Ike were compiled using the actual pump run SCADA data.
	Comment of Complaintant to the Left is Valid
	
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Section 3.4 – Authorized and Intended Lifespan of Pumping Equipment Installed at the Three Closure Structures. To start, a vast mount of discussion on this subject is found in previous Sections. Please see the following: • Response – pages 2 to 3. • Section 2 – pages 28 to 29 The PSR bases analysis of the hydraulic pumping equipment on a 5-7 year life span. This is a ludicrous position for many reasons. First, our contract for the hydraulic pumping equipment does not provide for this severely underestimated life span. Nowhere in our contract is there any discussion of a severely reduced life span for the hydraulic pumping equipment. In fact, our contract calls out for bearing life of 50,000 hours – for emergency pumping equipment to be utilized during possible hurricane storm events this equates to an extensive life span (as opposed to agriculture pumps that are used more extensively). Running the hydraulic for a period of time equal to "full time work days" provides for a 25 year life span – as I understand this equates to what is termed a "high usage" type pump (2,000 hrs/year). Regardless, 50,000 hours for emergency operations pumps represents a very long life span, likely in excess of 50 years. Next, the Commander of HPO, Col Bedey, **stated publically** our closure structures with pumps installed have a **50** year life span. To highlight, a very brief snip-it from one of Col Bedey's many public statements on the life span of the interim closure structures with installed pumps, recorded on February 12, 2008: "....We have temporary closure structures at the 17trh St. Canal, Orleans and London. Those are interim,....Interim protection provides 100-year protection but not permanent nature protection. We have 100-year protection in place but we don't have permanent protection in place. These have something around a 50-year lifespan. These were designed to there for 50-years." Next, our project as funded and authorized by Congress does not provide for "temporary" pumps (life span 5-7 years) that are installed onto the closure structures. The project as funded and authorized by Congress calls for interim closure structures with pumps installed and additional temporary/rental pumps utilized each year as necessary to augment the pumping capacity for the outfall canals. Specifically, because only a limited amount of	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

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structure and pumping capacity was able to be built/installed at the beginning of the first 2006 hurricane season 14 additional temporary/rental pumps were added to the 17th outfall canal to increase the available pumping capacity. In addition, for the following 2007 hurricane season, additional pump platform structures were built at 17th St. and London Ave, and additional pumps installed which increased the interim available pumping capacity at each outfall canal – however, for 2007 again additional "temporary/rental" pumps were utilized at 17th street to further increase pumping capacity. It was the pumping capacity that was temporary, not the pumps.	
I would also state this; who in the world would spend over ½ Billion dollars on something that has a life span of 5 years? $100M every year. The cost for true "temporary" and "interim" canal closures (build truly temporary platforms w/movable platforms and drive sheet pile) with pumping capacity (rent pumps) surely would not cost even a **tiny fraction** of this amount.... proposing ½ Billion dollars for something that has a life span of 5 year when the alternative for truly temporary" measures is so much less fails the "common horse sense" test..... Finally, our project as funded and authorized by Congress provided 50 year protection with follow on projects to increase this level of protection to 100 year level of protection. One of the very first official USACE documents for this project, the Project Information report (PIR), dated June 2006, utilized a Cost Analysis with a 50 year life span period for our project. It appears, after review of various House Bills, ensuing enacted Public Laws, and an evasive and unresponsive Report to Congress from the USACE, that this project was redefined mid-stream, effectively abandoned in place, by the USACE without the apparent knowledge or consent of Congress - likely to avert the attention being focused on the defective hydraulic pumping equipment installed at all three outfall closure structures. Specifically, up to and including April 2007, our project was built with the understanding follow on projects (phases) would augment the newly built closure structures with pumps installed by building additional pump platforms with pumps installed until a 100 year level of protection was achieved. There is a plethora of official documentation to support this including Public Laws, official USACE project reports, and official testimony by USACE TFH Leaders/Commanders. A small sampling of this documentation is as follows: • P.L. 109-234 • P.L. 110-28 • Alternative Considerations Report – Phase 2 Conceptual Design Services For Permanent Flood Stations and Canal Closures at Outfalls dated December 12, 2006. [to be provided in attachment] • Testimony by Ms. Karen Durham-Aguilera held at the Louisiana State Capitol Building on April 12, 2007. [transcript to be provided in attachment] Then, soon after this, documents from USACE began to surface that sought to disregard the direction give by Congress in P.L. 110-28, and future project planning for our project called for the existing closure structures with installed pumps to be abandoned in place (removed by 2013) and similar gated closure structures with pumps installed built a few 100 yards further down stream. There is also a great deal of documentation on this, three of which are: • USACE Report to Congress dated August 30, 2007. [to be provided in attachment] • USACE Permanent Canal Closures and Pumps Industry Day Brief dated January 21, 2009. [to be provided in attachment] • The Parsons supplementary report	nt of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	**APARIQ Comments about Validity**
What becomes painfully clear is USACE did not follow the specific direction given to them by Congress (P.L.110-28) and instead chose to investigate three completely different future project options, which in effect provided for abandoning the newly built closure structures with pumps installed in place. Interestingly, in this Report to Congress USACE makes every effort, at all levels of the supposed 'investigation' to not even mention, in passing or directly, the very existence of the newly built closure structures with pumps installed – incredibly, even when two of the USACE redefined viable future project options proposed the building of identical in nature closure structures (one gated, one permanent closure) with installed pumps no more than a few hundred yards further downstream from the newly built closure structures with installed pumps. What also becomes clear is the Report to Congress is a very good vehicle for confusing the lines of what the project description is/was/will be – by that I mean by completely omitting the very existence of any newly built closure structures with installed pumps to deal with the reader could very well think the Report is actually talking about building the already existing project, not a completely new project...I hope that makes sense. All I can say is Congress was not aware they were spending over ½ Billion dollars on a project only to abandon it in place and then move a few 100 yards further downstream and build a similar project (gated closure structures with installed pumps). In addition, Congress, USACE documentation, and the contract for this project supports the reasonable position that our hydraulic pumps were purchased with the intention they be suitable for service far beyond the PSR's contended life span of 5-7 years. The only reason the hydraulic pumps are no longer required to be of service beyond 5-7 years is because they are defective and not suited for the service they were intended for. Saying there was always a plan in place to remove them is a cover for removing them, and, that plan appears to only have grown legs once it became painfully obvious the hydraulic pumps were not suited for their intended service; operational pumps.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
Official congressional actions defining what Congress believes was to be/is to be the project to build closure structures and install pumps at all three outfall Canals; 17th St., Orleans Ave., and London Ave. **PUBLIC LAW 109–234—JUNE 15, 2006.** Provides the funds to build outfall canal closure structures and install pumps at 17th Street, London Avenue, and Orleans Avenue. Public Law 110-28 specifically states: "That the Secretary of the Army is directed to use the funds appropriated under this heading to..... provide hurricane and storm damage reduction and flood damage reduction in the greater New Orleans and surrounding areas; $530,000,000 shall be used to modify the 17th Street, Orleans Avenue, and London Avenue drainage canals and install pumps and closure structures at or near the lakefront;." **PUBLIC LAW 110–28 MAY 25, 2007**, Provides the funds to perform an analysis of three specific follow on project options and determine which was best suited to provide eventual 100-year storm protection. Congress explicitly specified that two of the future follow-on project options would involve incorporating the newly built closure structures with installed pumps into the final solution for providing the 100-year level of protection. The last project option that Congress directed be investigated was simply repairing/rebuilding the damaged/failed levees and floodwalls. Public Law 110–28 specifically states:	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	**APARIQ Comments about Validity**
"The Chief of Engineers shall investigate the overall technical advantages, disadvantages and operational effectiveness of operating the new pumping stations at the mouths of the 17th Street, Orleans Avenue and London Avenue canals in the New Orleans area directed for construction in Public Law 109–234 concurrently or in series with existing pumping stations serving these canals and the advantages, disadvantages and technical operational effectiveness of removing the existing pumping stations and configuring the new pumping stations and associated canals to handle all needed discharges to the lakefront or in combination with discharges directly to the Mississippi River in Jefferson Parish; and the advantages, disadvantages and technical operational effectiveness of replacing or improving the floodwalls and levees adjacent to the three outfall canals:"	Comment of Complaintant to the Left is Valid
PUBLIC LAW 110–252—JUNE 30, 2008. Provides additional funds in the amount of $704M to modify the 17th Street, Orleans Avenue, and London Avenue drainage canals and install pumps and closure structures at or near the lakefront; Interestingly, the project, as Congress appears to have understood it in P.L. 109-234 and P.L. 110-28 is just as it was described to me when I first arrived in New Orleans to work on the project (i.e. the closure structures with temporary pumps were not temporary in the physical sense, it was the pumping capacity of the interim pumping stations that was temporary – more pumps with associated structures were to be built to augment the newly built closure structures with installed pumps in the following year with possible added projects (floodwall repair, etc.) to maximize the ability to meet/exceed the 100-year protection promised to the people of New Orleans). Only when I later reported the hydraulic pumping equipment being installed at the outfall canals as defective did there then come about a revised project definition that attempted to paint the newly built closure structures as now temporary in the sense they were to be abandoned and "permanent" closure structures built a few hundred yards further downstream at the mouth of the outfall canals. Unfortunately, Congress, being purposely mislead, and likely very confused as to the validity of the project options being proffered by the USACE in their Report to Congress was then guided into passing a recent House Bill that now provides an additional $704M to apparently build a second closure structure with pumps installed at all three outfall canals. It appears Congress in on their way to paying twice for the same project without being informed as to why the first closure structures with pumps installed are unsuitable to continue forward as directed in P.L. 109-234 and P.L. 110-28. What this constitutes I cannot say specifically, but, at a minimum I believe there should be more done with regards to investigating if these actions constitute the misappropriation of funds, a gross example of an attempted cover-up, or violations of other various Statutes/Rules/Acts (Purpose Statute, Necessary Expense Rule, Anti-Deficiency Act , etc.)…. Bottom line, our closure structures with installed pumps were never meant to be anything less than industry standard type procurements with life spans similar, as defined by the contract, and, as defined by Public Law.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 3 – Additional/Supplemental Rebuttal to the PSR**	**APARIQ Comments about Validity**
Section 3.5 – Permanent Enhancement of the ICS Facilities Final Report dated April 27,2009. This Report, published on April 27, 2009, and prepared for USACE, MVD, NOD by ECM-GEC Joint Venture, investigates and reports forward on what modifications are required to extend the life of the Interim Control Structures (ICS) at all three outfall canals to a 50 year design life. This report and its determinations are represented in the Draft Individual Report, IER #5, dated May 2009, to evaluate the potential impacts associated with the construction and maintenance of the permanent protection system for the 17th Street, Orleans Avenue, and London Avenue outfall Canals. Pumping capacity was investigated and modifications to the existing ICS were identified that would meet the pumping capacity associated with a 100 year storm event. The identified ICS facility modifications required were as follows:Provide an additional 2,800 cfs of **direct drive** type pumps at the 17th Street Outfall Canal with associated piping with support structures. • Provide an additional 750 cfs of **direct drive** type pumps at the Orleans Avenue Outfall Canal with associated piping with support structures. • Provide an additional 2,100 cfs of **direct drive** type pumps at the London Avenue Outfall Canal with associated piping with support structures. Operation and maintenance issues were investigated and modifications to the existing ICS were identified that would extend the life of the ICS at all three outfall canals to a 50 year design life. The significant identified ICS facility modifications (higher dollar) required were as follows: • Remove all the hydraulic pumping Equipment from all three Outfall Canals and their associated piping and support structures. • Replace all the removed hydraulic pumps with direct drive type pumps and associated support structures. • Replace the existing knife gates with roller gates.	Comment of Complaintant to the Left is Valid & Parsons Report is Misleading & Partially Incorrect
The basis overall recommendation of the Report is that the hydraulic pumps, and all their associated components and their associated structures, be removed and replaced with more reliable direct drive pumps.	
The Report goes on to list specific deficiencies/problematic issues associated with/surrounding the hydraulic pumps:The hydraulic pumps are in-efficient. • The hydraulic pumps are subject to corrosion and leakage. • The hydraulic pump cooling capacity is subject to maintenance problems related to biologic growth and floating material. • The distance between the hydraulic pump and the power units exceed the recommended distance per the manufacture – incredibly even though the manufacturer is responsible for the design of same (design a pumping system with the associated separation distances). • The hydraulic fluid pressure in the hydraulic pipe may exceed the allowable 3000 psi capacity of the pipe. • The hydraulic pumps pose excessive danger related to hydraulic oil spills. • It is doubtful the hydraulic pumps can operate at lake levels resulting from a lake surge. • Physical model tests were performed on the 17th Street and London Avenue Pumping Stations and indicated that the performance of the pumping station intakes was un-acceptable. Recommend replacing all hydraulic pumps with direct drive pumps.	
Incredible, the $431M cost estimate for the modifications required to extend the life of the ICS at all three outfall canals to a 50 year design life, and the addition of additional direct drive type pumps to meet the pumping capacity associated with a 100 year storm event, is **half** that of the preferred proposed action identified in the Draft Individual Environmental Report, dated May 2009, and released for public comment by USACE May 04, 2009. Recapping, the preferred proposed action called out in IER #5 is to abandon in place the existing gated closure structures with installed pumps and build similar gated closure structures with installed pumps (direct drive pumps, not hydraulic pumps) a few 100 yards further downstream.	Comment of Complaintant to the Left is Valid

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 4 – Conclusion**	**APARIQ Related Comments**
Simply restating the following does not suffice: *"After a thorough review, the PSR can only be defined as a document completely without credibility. It's findings are not based on an analysis of the facts as they exist(ed) nor any real rigorous engineering and mathematical interpretation, and, can be refuted with a plethora of documentation to the contrary that can effectively demonstrate egregious untrue statements in fact, false demonstrations, blatant errors, mischaracterizations, and omissions of significant scale."*	Comment of Complaintant to the Left is Valid
The PSR For 70 pages I have been focused on being professional in my analysis of the egregiously lacking assessments I have been tasked to observe and report on. But I am suffering an internal storm that I feel deserves to find a voice in this document. As engineers we have an obligation to use our knowledge and practice our profession to the benefit of those we serve and to not cause harm. Our duty is first and paramount to our fellow citizens, not our employer. To help make it easier to understand – I may be able to engineer the perfect widget for my employer that makes them wealthy beyond all measure, however, if I know the widget I designed will cause serious harm to those around it I cannot promote or advocate it's viability for widespread public use, neither can I seek to hide the harm this widget would cause if operated. In our profession there may be no general agreement reached as to the 'nature' of engineering, or a universally acceptable definition, however, there has never been an acceptable measure named that equates the possibility of parity between storm events separated by $\log_{10}$ energies, nor, symmetry in life spans separated by 10 fold differences in expected and customary life span. If such existed, I would call this the "tidy universe" of a DoDIG/Parsons nature of just what engineering reality existed. Our universe is not 'tidy' when the mathematics do not support the reality that surrounds us. Parsons "Engineering Assessment" of the hydraulic pumping equipment is simply lowering the bar so low that one trips over it when passing. The only level that's worse is to roll the bar on the floor - i.e. the hydraulic pumps are fit-for-service as long as they survive a really strong mist and operate no longer than 6 minutes at 55% operating speeds. Or, even worse, the mathematical improbably that a storm will even hit the New Orleans area in the 1-3 year life span the pumps have left, i.e. 100% mathematical probably the hydraulic pumps will never be needed and can therefore be declared 'fit-for-service' "as long as they don't need to turn them on". Actually, this seems to be their argument ("we are abandoning these $530M one's here and building new $800M ones a stones throw away over there...in 3 years"). Equally problematic is the "my column of numbers adds up to the right answer" assessment – and even when they don't, who's going to check? This attempts to cover major issues with pages of Tables and Charts that make the bottom line numbers look even more impressive, no matter what the mathematical reality is. Even worse is refusing to acknowledge the very existence of the design deficiencies/problematic issues requiring assessment. What Durst pump drive? What hydraulic oil reservoir.... And then there is the "because I said so" assessment which supplements opinions for facts. When high pressure hydraulic pipe issues still give you problems, just use the "because I said so" assessment. You don't need to address Code violations for materials used and construction methods employed, nor do you have to address the shortcomings of your recalculations. Such flawed analysis is useful for making billions in government contracts, but clearly sacrifices public safety. Notice the Parsons SR never names the engineers responsible for its content. Why would an Engineering Assessment of such critical importance that the Secretary of Defense ordered it accomplished never cite an author? I don't have any recollection of ever seeing anything like this in the engineering profession - an Engineering Assessment of such critical importance where the engineers who do the assessment won't even put their names on it even when it is publically published – and, even though their profession mandates accountability and transparency in all such matters. I guess I've stumbled over the "Black Ops" Section at Parsons.	No comment

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What is known The facts as they have presented themselves throughout this entire process have provided a significant base of understanding as to the unsuitable condition and likely inoperability of the hydraulic pumping equipment for the purpose intended (able to be operated as emergency pumping equipment; i.e. operated at full operating speeds/pressures for extended periods of time).	No comment
Specifically, we know of two significant design deficiencies – both of which are of such magnitude further operation of the hydraulic pumping equipment without measures taken to remedy the design deficiencies **will** result in further catastrophic failures (as already evidenced by a plethora of unremitting Durst pump drive failures/overheating and O-Ring/Seal failures).	Comment of Complaintant to the Left is Valid
We also know the high pressure hydraulic piping is undersized, was constructed using inappropriate materials and methods, and possesses significant danger not only to catastrophic failure but also to operator safety.	No comment
We also know the hydraulic pumping equipment has never been operated such that it would satisfy a mechanical integrity test as provided by HI Standards. Associated with this we also know the acceptance testing USACE and the PSR purports as having been successfully completed in fact never was, and, the actual USACE QA documentation for the acceptance testing and other related USACE testing documentation proves there is much to be concerned about with regards to the sustainable operability of the hydraulic pumping equipment. We also know the hydraulic pump runs the PSR purports as having been accomplished during Hurricanes Gustav and Ike in fact did not occur, and, actual SCADA for this proves the hydraulic pumps were in fact never utilized to initially bring canal water levels nor were they needed to keep the city of New Orleans safe from flooding. In fact, the records show it was the direct drive pumps that were initiated and run to bring down canal water levels, and, it was direct drive pumps that were employed the lions share of all pump run time. The SCADA data proves the hydraulic pumps were not utilized when the highest canal water levels were present in the beginning, were not allowed to run at full operating speeds/pressures, nor allowed to run for extended periods of time - they were instead relegated to an "also pumped" status that was then turned into a straw man for hydraulic pump performance that was offered up to the highest levels of USACE. The recorded storm SCADA data shows clearly the hydraulic pump runs were not examples of pumping performance that replicates that as seen in a true Hurricane event, they are instead examples of what can be called "demonstration/exercise" runs. We also know the hydraulic pumping equipment currently installed at all three outfall canal structures was authorized, funded, and procured to provide protection from a 100-year storm event with a 50-year design life. Associated with this we also know as of less than three weeks ago USACE published a Report which investigated and recommended modifications required to extend the life of the Interim Control Structures (ICS) at all three outfall canals to a 50 year design life. Specifically, this report recommends all the currently installed direct drive pumps remain and all the currently installed hydraulic pumps and their associated piping and support structures be removed and replaced with direct drive pumps and associated structures at all three outfall canals – citing problematic operational and maintenance issues surrounding the hydraulic pumps. Given what is known today, through this Response document, and through 3 years of investigation and observation, I have no reservations in offering my assessment of the hydraulic pumping equipment. The more they are run, the more likely catastrophic failures will occur. If they are turned on in a real hurricane they will fail in ways that will astound the observer. The question I am left with is why did this happen, and why was this allowed to happen?	Comment of Complaintant to the Left is Valid

RESPONSE BY MARIA GARZINO TO: DoDIG Supplemental Report Prepared by Parsons **SECTION 4 – Conclusion**	APARIQ Related Comments
My answer is: loyalty and dedication to duty has **not** been focused on the citizens we serve. Loyalty and dedication to duty has instead been focused on the superiors we receive our taskings from and answer to on a daily basis, on the federal agencies we are employed by and their leaders, and on political Administrations in power and their self interests. All efforts have been focused on ordering performance and reporting back with no deviations, whether or not the performance rose to an acceptable level of engineering competence, or professional accountability. Therefore, I am asking for this process to somehow provide remedy and accountability for the issues I have brought forward. But, even more importantly, I am asking for the establishment of ***informed consent*** which so far has been denied the citizens of New Orleans. Every American citizen deserves the right to exercise informed consent with regard to the information their Government or its agents presents to them – to deny such is an affront to the very foundation of our rights as Americans. I also believe that it is paramount for USACE to pursue accountability and transparency in this matter. To date, neither one has made its mark on this project. Without them, one cannot reasonably expect there to be any improvement in the situation, or different result in the future. To fail means that innocent and undeserving people continue to be at risk of losing their lives and welfare, without even being informed. They deserve to know the dangers they face and they deserve our best efforts to remedy this situation. I remain profoundly grateful to USACE for the opportunity to serve our nation and the people of New Orleans, and submit this Response in furtherance of that mission. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Respectfully submitted, on this day, May 14, 2009, Maria E. Garzino Civil/Mechanical Engineer USACE, Los Angeles District cc: The Honorable Henry A. Waxman United States House of Representatives Committee on Oversight and Government reform 2157 Rayburn House Office Building Washington, D.C. 20515	No comment

Appendix - Listing of Cited Documents and Attachments

- "MEMORANDI FOR RECORD - Factory Testing Requirements and Field Testing Requirements of the Pumping Equipment as Provided For by Contract No. W912P8-06-C-0089:"

- Spec sheet for the supplied Caterpillar diesel engine.

- Spec sheets for the Durst pump drive and the Durst application sheet.

- Gustov Pump Run Graphs.xls
  - [Sheet 1] 17th Pump Run data – Gustov
  - [Sheet 2] London Pump Run Data – Gusatov

- Canal Level & time vs Hyd & DD Pump Runs - Gustov.xls
  - [Sheet 1] 17th St. Gustav
  - [Sheet 2] London Ave. Gustav

- Ike - Graph.xls
  - [Sheet 1] Ike Pump Run Data For 17th
  - [Sheet 2] Ike Pump Run Data For London

- Canal Level & time vs Hyd & DD Pump Runs -IKE.xls
  - [Sheet 1] 17th St. – IKE
  - [Sheet 2] London Ave. - IKE

- Transcript of testimony by Ms. Karen Durham-Aguilera held at the Louisiana State Capitol Building on April 12, 2007.

- Alternative Considerations Report – Phase 2 Conceptual Design Services For Permanent Flood Stations and Canal Closures at Outfalls dated December 12, 2006.

- USACE Report to Congress dated August 30, 2007.

- USACE Permanent Canal Closures and Pumps Industry Day Brief dated January 21, 2009.

- Permanent Enhancement of the ICS Facilities Final Report dated April 27,2009 – Prepared For U.S. Army Corps of Engineers, Mississippi River Division, New Orleans District by ECM-GEC Joint Venture, In Association With Black & Veatch Special Projects Corp.