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August 21, 2015

Chris Hoidal
Director, Western Region
DOT Pipeline and Hazardous Materials Safety Administration
12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

Re: CPF 5-2015-6002S
Sand Island Tank Facility

Dear Mr. Hoidal:

This letter constitutes ASIG's written response to the June 22, 2015 Notice of Proposed Safety Order regarding the Sand Island Tank Facility and its request for informal consultation. This response is submitted pursuant to the extension provided by PHMSA until August 22, 2015.

ASIG is committed to cooperating with PHMSA to resolve the Proposed Safety Order and appreciates the opportunity to meet with you informally to discuss our compliance plan going forward and answer any questions you may have. We have already begun our third-party inspection of all tanks and have identified and prioritized high risk items and begun performing repairs on the tanks that could present the highest risk of exposure or releases.

As a preliminary matter, ASIG would like PHMSA to know that it did not acquire management responsibility for the Sand Island Tank Facility until November 2004. ASIG has all previous API 653 inspection reports, which were provided to ASIG by former management of the Sand Island facility. When the first inspection under ASIG management was conducted in 2007, ASIG followed the 2007 inspection reports to the letter. But, if the inspector did not include items inspected earlier than 2007 in his 2007 report, ASIG did not act on the items identified in the earlier reports. ASIG believes that API 653 does not require a current report to identify items identified in earlier inspection reports, **unless those items have not been repaired and are still present during the current inspection.** For example, if a hole was indicated in a 1996 report and that hole was patched in 1996, the 2007 inspection report is not required to indicate the location of the former hole and that it was patched. Each inspection is from top to bottom and requires a large investment of time and resources. The tank being inspected must be taken off line, emptied, inspected and then repaired before it is placed back in service. Given the commitment of resources involved in a tank inspection, ASIG is committed to repairing each item identified in a API 653 inspection report.

We have responded to PHMSA's proposed findings below. Each proposed finding is repeated below, followed by ASIG's response. ASIG's responses and its proposed Work Plan are without prejudice to its position at any subsequent hearing, but ASIG hopes that this matter can be resolved through consent, without hearing. ASIG looks forward to finalizing its Work Plan with guidance and input from PHMSA.

RESPONSE TO PHMSA'S PRELIMINARY FINDINGS

"Tank 2 of the Tank Facility was constructed in 1973, with a new single-bottom floor installed in 1989. The 15 other tanks on the Tank Facility were constructed between 1966 and 1989, and each can store between 25,000 barrels and 132,000 barrels of jet fuel." Notice, page 2.

Response: The 16 tanks within the facility were constructed between 1966 and 1999 (not 1989). We previously provided PMHSA with a worksheet with the age of each tank. See Worksheet attached as Enclosure 1. We believe the reference to 1989 above is a typographical error.

"In December 2014, ASIG controllers noted inventory discrepancies after filling Tank 2 via ocean vessel. As a result, ASIG emptied, degassed, and cleaned Tank 2 beginning on December 26, 2014. The floor was scanned by Magnetic Flux Leakage (MFL) tool and metal loss was noted at a 6-inch repair patch of the floor near the tank's center sump. ASIG stated the leak was caused by a failure of the weld at this patch location." Notice, page 2.

Response: ASIG actually informed the PHMSA inspector that the leak was caused by corrosion at a weld, not that the weld had failed. We regret any misunderstanding on this point. Hawaii Fueling Facilities Corporation (HFFC) hired a third party contractor to complete a failure analysis of Tank 2, including metallurgy testing. That firm's inspection report confirms that the tank failure was due to corrosion caused as a result of a failure in the tank coating. The failure analysis was unable to determine whether the coating failed because of the method of application, a failure to maintain the coating or any other possible cause. The failure analysis, which ASIG recently received, is attached as Enclosure 2.

"At approximately 7:02 pm HST on January 21, 2015, PHMSA was notified by the National Response Center (NRC #1106276) of a leak at Tank 2 of the Tank Facility (Accident). An estimated 42,000 gallons of jet fuel seeped from Tank 2." Notice, page 2.

Response: Specifically, ASIG first notified the National Response Center at 1302 HST.

"On March 11, 2015, PHMSA inspectors initiated an investigation of the Tank 2 Accident. This investigation identified numerous safety and regulatory issues relating to the inspection, record keeping, ongoing floor corrosion, and previous floor repairs of Tank 2.

"Specifically, the previous two API 653 Out-of-Service Inspections (in 2000 and 2007) on Tank 2 did not:"

"identify that undersized patches were used to repair the tank floor. (Notice, page 2.)

Response: ASIG is not aware of any undersized patches that were used to repair the tank floor. None were identified by the third party inspectors who inspected the tank floor. Please note, the size of the patches was dictated by the existing API 653 standard in 1996. At that time, there were no minimum size requirements for patches. In addition, the failure analysis (referenced above) does not indicate that the tank patches contributed to the leak.

"identify all tank patch locations in the tank floor, including several that had been installed between 1998 and the present." Notice, page 2.

Response: ASIG believes that there is no requirement in API 653 to identify previously installed patches in subsequent inspection reports. The three previous API 653 Out-of-Service inspections in 1998, 2000 and 2007 that were prepared on Tank 2 did not identify any previously installed patches. In addition, these reports did not require any tank floor repairs and therefore ASIG believes that all patches currently on the Tank 2 floor were installed prior to 1998.

"identify that some of the patches were placed over lap welds between floor plates." Notice, page 2.

Response: ASIG does not believe that API 653 prohibits patches over lap welds. It also does not require them to be identified in inspection reports.

"identify several recommendations made in a 1996 inspection report that were not performed at that time because the tank had already been placed back in service, including:

- Lap welds stepped in the wrong direction,
- Undersized fillet welds,
- Lack of an API required hydrotest after the floor to shell fillet weld was repaired, and
- Use of both full penetration butt welds and lap welds on the annular ring."

Notice, page 2.

The API 653 Out-of-Service inspection reports in 1998, 2000 and 2007 did not indicate that any lap welds were stepped in the wrong direction, identify undersized fillet welds, or find issues with the shell fillet weld or use of full penetration butt welds and lap welds on the annular ring. ASIG believes that there is no requirement in API 653 to identify items from previous inspection reports in a subsequent report. However, in order to fully cooperate with PHMSA in good faith, we have requested our current API 653 inspector, Ken McNamara, with Engineering and Inspections Hawaii, Inc., to review PHMSA's preliminary findings and all of the findings in prior inspection reports and provide us with guidance regarding the findings and best industry practices.

"Use the proper data to determine the remaining life of the tank floor and the time until the next scheduled API 653 Out-of-Service Inspection. The 2000 API 653 Out-of-Service Inspection report indicates pits in the annular ring of the tank but the 2007 report does not indicate any pits. Furthermore, the operator had no records of a floor repair between 2000 and 2007 and did not recall any floor repairs taking place during this period." Notice, page 2.

Response: The 2000 inspection report observed that pitting in the annular ring had been properly coated, not that a repair was needed. The 2007 report did not address or identify the pitting because it had been repaired. If we have misunderstood PHMSA's proposed finding on this issue, we should discuss this further at our informal meeting.

"include the bottom thickness UT readings in the 2007 report." Notice, page 2.

Response: The 2007 report includes bottom thickness UT readings on page 11.

"identify tank floor issues that required repair. No issues were indicated with the tank floor in the 2007 inspection report, API 653 Appendix C, checklist despite the fact that many issues existed." Notice, page 3.

Response: It is not clear to ASIG that the tank floor issues that you refer to were identifiable in 2007, and that may be why they were not noted in the 2007 inspection report. As a result of the release, ASIG does know that a hole in the tank floor did occur, but it is not known how long the hole took to develop or whether it was identifiable or required action in 2007. It was not identified in the 2007 report. In addition, an inspection of the tank floor was performed in January 2015. While it noted 12 localized areas of corrosion that required repairs, in ASIG's experience, this is not unusual for this size, type, and age of floor. See January 2015 inspection report as Enclosure 3.

"ASIG did not conduct an API 653 Out-of-Service Inspection within the timeframe recommended by the last API 653 report. The time until the next inspection is listed as 5.33 years in the 2007 report; however, the tank did not have another API 653 Out-of-Service Inspection performed on it prior to its failure in December 2014." Notice, page 3.

Response: On page 4 of the 2007 report, the "Basic Tank Information" table indicates that the "Next Out-of-Service Inspection" is recommended for 2017. It is this express information that ASIG used to schedule the subsequent Out-of-Service Inspection for Tank 2. In addition, ASIG has asked the inspector who wrote the 2007 report about the 5.33 years referred to in the calculation table on page 11. The inspector confirmed that this was a calculation error, as ASIG had previously concluded, and the next inspection period is in fact 10 years. See Enclosure 4.

"There were deficiencies in ASIG's records regarding Tank 2:"

- "The operator believed that the tank had a double floor when there was only a single floor." Notice, page 3.

Response: ASIG agrees that the 2000 and 2007 API 653 inspection reports stated "A second bottom was installed by PDM in 1989. However, what that meant was that the original floor was removed and replaced. ASIG was accordingly treating and operating Tank 2 as a single-floor tank.

- "The operator believed that there was a sand layer installed beneath the tank floor when it is actually it appears to be a coarse material as observed by the PHMSA inspector at that time." Notice, page 3.

Response: To its knowledge, ASIG never stated in records, to an inspector, or otherwise that there was a sand layer beneath the tank floor. ASIG actually indicated that it was crushed coral in the 1998 inspection report, which has been previously provided to PHMSA. See the 1998 inspection report attached as Enclosure 5.

- "A 1998 inspection report documents several patches installed on the floor, but subsequent inspection reports do not indicate any patches. Inspection of the tank floor in March 2015 identified several more patches installed that were not indicated on the 1998 drawing, but the operator had no record of them ever being installed. No records exist of the additional patches installed between 1998 and the present." Notice, page 3.

Response: As previously noted, ASIG believes that API 653 does not require identification of previously installed patches in inspection reports. The 2000 and 2007 inspection reports do not indicate that patches were improperly made or that more patches were needed.

"The authorized tank inspector (AI), "Inspector A" who last inspected Tank 2 also performed API 653 Out-of-Service Inspection on other tanks at the Tank Facility. The quality level of previous API 653 Out-of-Service Inspection including record keeping and analysis of results of the other 15 storage tanks at this facility is therefore questionable. Based on the information provided by ASIG, Inspector A performed the last API 653 Out-of-Service Inspection on the following tanks: 3, 4, 5, 6, 11, 12, 13, 15, 16, 17, and 18. A different inspector, "inspector B", performed the last API 653 Out-of-Service Inspection on the four other tanks but inspector A had also performed API 653 Out-of-Service Inspections on these tanks in the past. Based on inspector A's involvement in inspecting all of the other 15 tanks in the past and ASIG's poor recordkeeping of the tanks, we have concerns about the integrity of all 15 other tanks. ASIG has indicated that they have concerns about many, but not all, of the tanks as well and has begun the process of performing API 653 Out-of-Service Inspections on the tanks that they are most concerned about." Notice, page 3

Response: Inspector A is a certified API 653 Tank Inspector qualified by the American Petroleum Institute. However, in light of the failure of Tank 2, and to ensure a well-reasoned, risk-based examination of the storage tanks, ASIG has developed our Proposed Work Plan below that will ensure an orderly and well-thought out inspection program to verify the integrity of all tanks. ASIG is using Ken McNamara, API 653 Certification Number 873 (Expiration June 30, 2017), who is employed by Engineering and Inspections Hawaii, Inc., P.O. Box 700217, Kapolei, HI 96709, Phone: (808) 682-1667 as our third-party API 653 Tank Inspector throughout this Proposed Work Plan. If PMHSA has any concerns about Mr. McNamara or his firm, ASIG would appreciate PHMSA's insights.

ASIG's Proposed Work Plan

ASIG would like to work with PHMSA to develop a consent Safety Order which will form the basis of ASIG's Proposed Work Plan for remedial measures. We have provided the proposed components of our Work Plan below in order to discuss it and obtain PHMSA's input and approval at the informal consultation.

ASIG proposes to perform API 653 Out-of-Service Tank Inspections on each tank at the facility that has not received an API 653 Out-of-Service Tank inspection since December 2014, excluding those specific tanks for which an exemption is being requested below. Please note that we have already completed new inspections of several tanks and have made repairs. This Proposed Work Plan uses a risk-based prioritization methodology to determine the proper order and sequence for the tank inspections and repairs, so that high risk older tanks are addressed and repaired as quickly as possible. All inspections will be completed by December, 2016, with repairs to follow each inspection as soon as possible.

The following Tanks have had API 653 Out-of-Service Tank Inspections completed since December 2014. Supporting inspection and repair documentation is enclosed:

- Tank 1 – An inspection was completed in April 2015 and all mandatory repairs were completed in May 2015 (see Enclosure 6). All repaired surfaces were prepped and coated as detailed in the Enclosure. The following non-mandatory repair was recommended:
    - *"**Minor Repairs:** Repairs that can be performed after returning the tank to service or in the near future; within five (5) years.* 1. Repair all active interior corrosion on the tank floor and piping, by recoating the tank interior."

ASIG proposes that this non-mandatory repair be completed in 2016, when the tank is next removed from service for inspection.

- Tank 2 – An inspection was completed in January 2015 and a third-party party failure analysis, including metallurgy testing, was completed in July 2015 (see Enclosures 2 and 3). However, the tank remains out of service pending repair decisions by HFFC, in consultation with a third-party engineering firm.

- Tank 4 – An inspection was performed in June 2015 and all mandatory and non-mandatory repairs are currently being completed. (see Enclosure 7). Once all repairs are completed, we will provide a final report from the API 653 inspector evidencing all repairs were completed properly.

- Tank 7 – A visual internal floor inspection in February 2015 by an API 653 inspector indicated *"inspection of the tank floor revealed a surface with failed coating resulting in a tank floor completely covered in small positive blisters or holidays. These blisters were noted to interfere with standard MFE inspection practices along with the required ultrasonic thickness "prove up" scanning. The tank owner should arrange removal [of] the failed coating by abrasive blasting to provide an acceptable surface for MFE inspection."* Based on the inspector's recommendation to sand blast the floor, as well as previous soil-side corrosion issues identified on API 653 inspections, the tank remains out of service while a complete floor replacement is being considered by HFFC, in consultation with ASIG and a third-party engineering firm (see Enclosure 8).

We propose the following tanks be exempted from the Proposed Work Plan for the reasons indicated:

- Tank 6 – A second liner, cathodic protection system, and tank floor were installed in 2014 (see enclosed construction records at Enclosure 9).

- Tank 11 – A second liner, cathodic protection system, and tank floor were installed in 2014 (see enclosed construction records at Enclosure 10).

- Tank 12 – A second liner, cathodic protection system and tank floor were installed in 2014 (see enclosed construction records at Enclosure 11).

- Tank 13 – Sand substrate, liner, cathodic protection system, and tank floor were replaced in 2013 (see enclosed construction records at Enclosure 12).

The Proposed Work Plan prioritizes the inspection and repair as necessary of the remaining tanks (aside from those identified above) in the following sequence, with the Out-of-Service Inspections to be completed by December 2016:

1) Tank 5
2) Tank 3
3) Tank 18
4) Tank 17
5) Tank 15

6) Tank 16
7) Tank 14
8) Tank 19

We understand the Director may grant an extension of time for compliance with any of the terms of the Safety Order upon written request submitted in a timely manner demonstrating good cause for an extension. Repairs of high risk items that could lead to a release will be conducted first and the company commits to accomplishing this as soon as possible. Certain repairs have already been completed, as indicated above and additional repairs are underway.

Ken McNamara, API 653 Certification Number 873 (Expiration June 30, 2017) who is employed by Engineering and Inspections Hawaii, Inc., P. O. Box 700217, Kapolei, HI 96709, Phone: (808) 682-1667 is proposed as our third-party API 653 Tank Inspector throughout this Work Plan.

The inspector will review records and the results of each Out-of-Service Tank Inspection for submission to PHMSA with mandatory and non-mandatory repairs verified as accomplished prior to returning each tank to service.

This correspondence additionally establishes the initial monthly report that: (1) includes available data and results of the inspections required by the Safety Order; (2) describes the progress of the repairs and other remedial actions being undertaken; and (3) provides tank inventory data to demonstrate that the tanks are not leaking (see Enclosure 13).

As we stated initially, ASIG is committed to working with PHMSA to resolve any safety issues at the Sand Island facility, prioritize and complete any necessary repairs and comply with all requirements of PHMSA regulations. ASIG has kept the required records and implemented repairs recommended in inspection reports since its takeover of management responsibility in November, 2004 and will continue to do so. We appreciate PHMSA's guidance in this matter and look forward to promptly resolving it.

Please let us know when you would like to schedule the informal consultation by contacting the General Manager at ASIG – Honolulu, Jason Maga, (808) 833-3291, Fax (808) 833-3295. If you have any questions or need additional information, do not hesitate to contact Jason as well.

Thank you for your assistance.

Sincerely,

Lawrence McMahon
Vice-President Fuel Consortiums