



Nigel Hearne
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December 19, 2012

VIA ELECTRONIC MAIL

Gayle McLaughlin, Mayor
Jim Rogers, Vice Mayor
Nathaniel Bates, Councilmember
Jovanka Beckles, Councilmember
Courtland “Corky” Booze, Councilmember
Thomas K. Butt, Councilmember
Jeff Ritterman, Councilmember
City Council Chambers
440 Civic Center Plaza
Richmond, CA 04804

Dear Mayor, Vice Mayor, and Councilmembers:

We are writing with respect to the Honorable George Miller’s December 18, 2012 letter to you regarding the August 6 fire that occurred at the Chevron U.S.A. Inc. (“Chevron U.S.A.”) Richmond Refinery. We are very disappointed in the letter, which contains multiple factual inaccuracies and significantly mischaracterizes Chevron U.S.A.’s engagement with interested parties in response to the incident. The letter needlessly politicizes and undermines a material selection process that should be wholly based on technical standards and professional judgment.

We were particularly surprised by the letter given the engagement that we have had with Congressman Miller’s office in the weeks and months since the incident. As recently as December 13, 2012, for example, Chevron U.S.A. representatives, on our initiative, met with his staff to update them concerning the company’s process safety incident investigation. It is unfortunate that the letter chose not to reflect this ongoing dialogue and our good-faith sharing of information.

We agree with Congressman Miller that the “overarching concern” is how best to ensure safe operations. Post-incident, we immediately recognized that numerous parties are interested not only in the factors that gave rise to the incident, but also in the steps that we are taking to prevent a recurrence. We have therefore been open and transparent with the investigating agencies with respect to our incident investigation and our plans to repair damaged piping and other process equipment in the No. 4 Crude Unit. Congressman Miller may be unaware of the countless meetings, telephone calls, and other information exchanges we have had with the community, union and labor representatives, elected officials, and regulatory and oversight agencies since the incident occurred over four months ago.

The suggestion that this sustained and substantive engagement has resulted in “mere assurances” demeans the process and all of its participants. This statement also reflects a fundamental misunderstanding of the technical basis for Chevron U.S.A.’s selection of 9 chromium alloy (“9Cr”).

9Cr complies with the engineering standards of the American Society of Mechanical Engineers (“ASME”) Code for Process Piping (“ASME B.31.3”) and the fire-safety standards of the National Fire Protection Association (“NFPA”) Flammable and Combustible Liquids Code (“NFPA 30”). These technical standards have been incorporated into the California Fire Code (“CFC”) (24 Cal. Code Regs. Part 9, Chapter 47). Ensuring compliance with these standards is at the core of the permit review by the City of Richmond (“the City”). Thus, as a threshold matter, it is not our “mere assurance” that supports a conclusion that 9Cr is adequate for use in the No. 4 Crude Unit; it is the “assurance” of internationally-recognized and universally-adopted engineering and fire-safety standards that are used throughout the refining industry, as well as every metallurgist who has considered and opined on Chevron U.S.A.’s selection of 9Cr.

In addition to adhering to the applicable engineering and fire-safety standards, 9Cr is also specifically recognized in American Petroleum Institute (API) Recommended Practice 939-C – *Guidelines for Avoiding Sulfidation (Sulfidic) Corrosion Failures in Oil Refineries*, as being suitable for use in high-temperature sulfidation (“HTS”) service. Thus, based on all applicable technical standards and recommended practices, 9Cr is a suitable material for replacing the fire-damaged piping systems in HTS service in the No. 4 Crude Unit. We also appreciate that the City has gone to extraordinary lengths to review and confirm that Chevron U.S.A.’s selection of 9Cr is appropriate by hiring two independent experts to peer review our decision.

The letter suggests that Chevron U.S.A. has been delinquent in its response to agency subpoenas issued following the incident. Since that date, the company has received over 500 requests for documents and information from six state and federal agencies, including more than 120 subpoena items from the Chemical Safety Board (“CSB”) alone. We also have facilitated over 200 interviews of employees by government investigators.

In responding to this flood of information requests, Chevron U.S.A. has produced approximately 300,000 pages of documents in only four months and continues to work diligently in an effort to close out new and pending requests. To date, we have provided complete responses to more than half of the CSB’s subpoena requests, produced according to the agency’s own prioritization. Chevron U.S.A. questions how its efforts in responding to such requests could be characterized as “slow” when the CSB itself described Chevron U.S.A.’s cooperation with the agency as “excellent” only four weeks ago in a November 17, 2012, letter to the City.

Congressman Miller’s letter intimates that Chevron U.S.A. is withholding information while “pressing the City to meet Chevron’s timeline.” Again, this statement ignores that we have repeatedly engaged with the CSB since it first expressed a concern about material selection to the City on November 17, 2012.¹ Since then, our technical experts and legal counsel have held multiple telephone conferences with the CSB, other agencies, and other interested parties to discuss the very issues posed by the CSB’s interrogatories on material selection.

¹ As discussed later in this letter, Chevron U.S.A. notified the CSB and other governmental agencies as early as October 2, 2012 of the intent to use 9Cr.

- On November 17, 2012, our legal counsel conferred with representatives of the CSB (Daniel Horowitz and Dan Tillema) regarding the material selection issue and the CSB's concerns.
- On November 19, 2012, Nigel Hearne, the Richmond Refinery General Manager, authored a letter to Bill Lindsay, the City Manager, explaining the basis for the selection of 9Cr and expressing the Refinery's "willingness to meet to further explain the technical basis for our decision to utilize 9 Cr."
- On November 19, 2012, a Chevron U.S.A. representative appeared at a public meeting of the Bay Area Air Quality Management District ("Air District"), along with representatives of the California Division of Occupational Safety and Health ("Cal/OSHA"), the U.S. Environmental Protection Agency ("EPA"), and Contra Costa County Health Services ("the County"), and answered questions regarding material selection.
- On November 21, 2012, Ned Niccolls, Chevron U.S.A.'s foremost expert in metallurgy and the Chairman of the task group that drafted the first addition of API 939-C, authored a letter to the CSB offering a further technical explanation of the suitability of 9Cr for this service.
- On November 21, 2012, during a weekly call involving the agencies investigating the incident, Chevron U.S.A. confirmed no objection to 9Cr by the agency representatives participating in the call, which included Cal/OSHA, the CSB, the EPA, and the County.
- On November 26, 2012, we arranged and participated in a teleconference with representatives of the CSB (Daniel Horowitz, Don Holmstrom, and Dan Tillema) to continue discussions on this topic.
- On November 26, 2012, we participated in a meeting at city hall attended by the City, the CSB, the Air District, Cal/OSHA, the EPA, the County, the United Steelworkers ("USW"), and representatives from Congressman Miller's office. During the meeting, Cal/OSHA, the EPA, the Air District and the County offered no objections to the selection of 9Cr. James McLaughlin, the independent materials expert retained by the City, offered strong support for the upgrade to 9Cr.
- On November 30, 2012, Mr. Niccolls sent to the CSB a second supplementary letter on the material selection topic.
- On December 4, 2012, we arranged and participated in a teleconference with representatives of the CSB (Don Holmstrom and Dan Tillema) to continue discussions on the material selection topic.
- On December 10, 2012, Mr. Niccolls met with representatives of the City, including Mr. McLaughlin and the City's Fire Marshall.

- On December 12, 2012, and in response to a specific request from the City, we submitted a document to the City again explaining the technical basis for our selecting 9Cr.
- On December 13, 2012, we participated in an in-person meeting with the CSB (Daniel Horowitz, Don Holmstrom, Dan Tillema, and Lauren Grim) to further brief the agency on the technical basis for the material selection.

When the CSB made clear to us late last week that it wanted a timetable for when Chevron U.S.A. would provide written responses to the specific questions regarding material selection, we committed to providing the agency answers this week. In fact, we informed Congressman Miller’s staff the day before his letter was sent that we would provide our answers to the CSB on December 18th (which we did).

The letter observes that whether “decisions on pipe materials were correct or not is for experts to determine.” On this point, we agree with Congressman Miller. It is a decision for experts; and *every* metallurgy expert that has reviewed the Refinery’s material selection for the repair of the No. 4 Crude Unit has uniformly confirmed that 9Cr is: (1) an appropriate material for this service; and (2) consistent with all relevant industry standards and guidance (including the CFC and API 939-C).

- In a letter to the CSB on November 21, 2012, Mr. Niccolls stated that 9Cr alloy is the “clear better choice” and the “safer, more robust selection for this particular service.” Mr. Niccolls further elaborated that 9Cr presents less overall risk because stainless steel is susceptible to chloride stress corrosion cracking (“SCC”) which “can be difficult to detect...[and] can initiate and propagate through the entire stainless steel wall of pipe with little warning.”
- Mr. Niccolls offered further technical expertise on this issue in a second letter to the CSB dated November 30, 2012, reemphasizing that 9Cr is “a more predictable and robust overall choice...largely because it is immune to types of stress-corrosion cracking...” which are “...almost impossible to monitor.” In response to the City’s request to provide specific examples of SCC affecting crude units, Mr. Niccolls’ letter also documented 10 discrete instances of SCC in the industry spanning several decades in the hot piping portion of crude units “in similar or analogous service to the piping being replaced as part of the repair to the No. 4 Crude Unit.”
- On December 18, 2012, Mr. McLaughlin, authored a letter to Mr. Lindsay expressing that Chevron U.S.A.’s “concern for stress corrosion cracking of [stainless steel]...” and “reports on 10 incidents of SCC of [stainless steel]...in crude units similar to the service of the replacement of piping...is consistent with industry experience.” Mr. McLaughlin also confirmed that “the selection of [9Cr] is consistent with industry practices”, and that 9Cr meets the requirements of applicable industry standards and guidelines as well as the CFC.

- On December 18, 2012, David Hendrix, a second independent metallurgy expert retained by the City, stated in a letter to Mr. Lindsay that regarding “Chevron’s selection of 9Cr material as replacement piping for the No. 4 Crude Unit rebuild project, it is my opinion that, based on my review of their technical report, Chevron followed a logical, technically sound and defensible basis for their selection” that is “consistent with industry practice.” Mr. Hendrix also agreed that “9Cr material meets the requirements of CFC and its referenced standards and codes.”
- In a letter to Mr. Lindsay, dated December 18, 2012, Jonathan Dobis, also an independent metallurgy expert, reached the same technical conclusions as Mr. Niccolls, Mr. McLaughlin, and Mr. Hendrix, stating that stainless steel “poses well known risks that many energy companies, designers and end-users consider unacceptable.” After detailing the limitations of stainless steel based on its susceptibility to SCC, Mr. Dobis concluded that “[m]ost materials and corrosion engineers avoid the use of stainless steel where more suitable materials that are immune to chloride SCC (such as 9 Cr) can be used.”
- Not only has every metallurgy expert that has weighed in on this issue expressed support for the Refinery’s selection of 9Cr, the following stakeholders have, to date, stated no objections to the decision: Cal/OSHA, the EPA, the County, and the Air District. By letter to the City dated December 11, 2012, the USW International made clear that they were not opposed to the use of 9Cr in the repair work.

Congressman Miller’s letter next asserts that “[n]ow, when Chevron seeks a permit to proceed with already purchased and partially installed materials, questions are being asked about the technical basis for choosing these materials.” This statement casts Chevron U.S.A.’s selection of 9Cr as being driven by cost and convenience, which is fundamentally incorrect.

On October 2, 2012, during a meeting among representatives of Chevron U.S.A., the EPA, the CSB, and the County, we explained that we intended to use 9Cr for some of the repairs. The next day, before seeking any permits from the City for the repair work, we entered into a written acknowledgement with Cal/OSHA and the CSB providing that Cal/OSHA and the CSB had “no objection to the City issuing building permits to [Chevron U.S.A.] in the ordinary course of business for work related to the August 6, 2012 fire either inside or outside of the Exclusion Zone.” With the agencies aware of the Refinery’s decision to use 9Cr and with the signed acknowledgement, the City began issuing permits, including permits for 9Cr. Not a single component of pipe has been installed without a valid permit issued by the City, all of which are posted on the City’s website. In addition, all agencies, including the CSB, were aware the City was issuing permits. Contrary to the implication of Congressman Miller’s statement, Chevron U.S.A. is not trying to obtain permits to retroactively justify already-installed work, but is seeking to recommence the permitting process that was started with the investigating agencies’ acknowledgment and consent.

Second, the fact that Chevron U.S.A. has already purchased 9Cr pipe did not drive the selection of this material for service in the No. 4 Crude Unit. It is not unusual for Chevron U.S.A. to purchase materials ahead of commencement of construction, even at the risk of

financial penalty, because many materials have long lead-times for ordering and delivery, and the cost of delay on the back-end of construction outweighs the cost of possibly having to return the materials. This is not merely an abstract concern – Chevron U.S.A. can provide numerous examples of projects over the years for which materials were ordered early in the project-development phase, only to be returned later with a financial penalty because the materials ended up being unsuitable for the proposed work. Chevron U.S.A. is not pursuing permits for 9Cr because it has already purchased 9Cr pipe, but because 9Cr is the right material.

The letter also criticizes Chevron U.S.A. for making a “unilateral decision.” As the owner and operator of the Refinery, the burden of (and resulting legal responsibility for) making material selection decisions falls squarely on Chevron U.S.A. – a point acknowledged by every one of the governmental agencies, including the City, Cal/OSHA, the EPA, the County, and the CSB. The suggestion that “expediency” somehow overrode the “transparency of the decision making process” is simply not true. We made clear our intention to use 9Cr pipe in numerous meetings with the agencies following the incident, including the October 2nd meeting discussed above. It is worth noting that this discussion occurred in the context of a meeting to discuss the “inherently safer systems” concept of the City’s Industrial Safety Ordinance. The CSB did not express a concern about the material selection decision or process until more than six weeks after this meeting. We would also note that we had previously selected 9Cr for the replacement of a section of carbon steel piping in the No. 4 Crude Unit at the Refinery in 2007, and that others in the industry have been making similar upgrades.

The letter goes on to variously misrepresent and misstate certain information regarding the Refinery’s maintenance and reliability program. As you know, the investigations by Chevron U.S.A. and the government agencies into the incident are ongoing. It is therefore wholly inappropriate to speculate, as the letter does, as to the potential causes or factual circumstances leading up to the incident. We also are disappointed that the letter broadly mischaracterizes our safety systems and performance using information that we voluntarily shared in good faith as part of our commitment to transparency.

To the concerns raised in the letter about “Chevron’s inspection systems, its decision-making about mechanical integrity, and its willingness to tolerate unacceptable levels of risk,” we would reiterate that we take the incident very seriously and are committed to learning from this event and applying what we learn towards preventing a similar incident from happening again. As you may be aware, Chevron U.S.A. alerted the industry on September 26 that we had reached the preliminary conclusion that the incident may have been due to HTS corrosion that resulted in general thinning of an individual carbon steel piping component that may have had low silicon content. We also are conducting inspections of all individual carbon steel components in carbon steel piping systems exposed to HTS conditions. This will entail more than 100,000 inspections at our facilities.

Lastly, the letter referenced “dire warnings” about layoffs and higher gas prices if the repairs are delayed. The suggestion is that these are tactics imagined by Chevron U.S.A. to somehow unduly influence the permitting process. Unfortunately, these are very possible outcomes. We are working hard to avoid the need to furlough up to 500 hourly workers, but if

the repair work is delayed because permits are being held up by politics we may have no other choice because there will simply be no work for them to do. A delay in the startup of the No. 4 Crude Unit may also impact supply on the West Coast in the first quarter, a seasonal period when the region's refineries typically conduct turnaround and maintenance projects.

Longer term, the unpredictability of the permitting process for the repair of the No. 4 Crude Unit, coupled with the unsuccessful experience Chevron U.S.A. has had trying to obtain permits for the Refinery's modernization project over the past six years, raises doubts about the ability to do business in California in a predictable, economic and sustainable way. As we have indicated during every engagement we have conducted since the CSB first expressed a concern *a month and a half after it learned of the decision to use 9Cr*, we hope we can find a path to move forward in a more productive way for the sake of our company, the community, and the local economy.

Sincerely,

A handwritten signature in black ink that reads "Nigel Hearne". The signature is written in a cursive, slightly slanted style.

Nigel Hearne

cc: The Honorable George Miller
Bill Lindsay, Richmond City Manager