The American Petroleum Institute (“API”) and the Association of Oil Pipe Lines (“AOPL”) appreciate the opportunity to comment on the revised Integrity Verification Process (“IVP”). API and AOPL support efforts by the Pipeline and Hazardous Materials Safety Administration (“PHMSA”) to establish a process to verify operating pressures of the nation’s pipelines, but raise some concerns with the revised integrity verification draft process (“IVP chart”).

On September 11, 2013, API and AOPL filed comments on the original draft process, issued June 28, 2013. The comments below respond to the second IVP chart issued September 10, 2013, although the original comments, which were not considered before the IVP chart was issued, still apply.

I. The Moderate Consequence Area Definition is Overly Complex and Exceeds the Intended Scope of Law

As stated in the initial comments of API and AOPL, the IVP chart exceeds the mandates issued by Congress to PHMSA in Section 23 of the Pipeline Safety, Regulatory Certainty, and Jobs Creation Act of 2011 (“Act”). Section 23 of the Act specifies that

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1 API is the only national trade association that represents all aspects of America's oil and natural gas industry—an industry which supports 9.2 million American jobs and 7.7 percent of the U.S. economy. API’s more than 500 corporate members, from the largest major oil company to the smallest of independents, come from all segments of the industry. They are producers, refiners, suppliers, pipeline operators and marine transporters, as well as service and supply companies that support all segments of the industry.

2 AOPL is a national trade association that represents owners and operators of oil pipelines across North America and educates the public about the vital role oil pipelines serve in the daily lives of Americans. AOPL members bring crude oil to the nation’s refineries and important petroleum products to our communities, including all grades of gasoline, diesel, jet fuel, home heating oil, kerosene, propane, and biofuels. Together, AOPL and API members operate approximately 90% of the hazardous liquids pipeline miles in the United States.

3 Section 23 states that the Secretary of Transportation shall “require each owner or operator of a pipeline facility to conduct … a verification of the records of the owner or operator relating to the interstate and intrastate gas transmission pipelines of the owner or operator in class 3 and class 4 locations and class 1 and class 2 high-consequence areas.” Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, 49 U.S.C.S. § 60101 (2012).
PHMSA should issue regulations targeting certain classes of pipeline. The IVP chart indicates that the draft process would apply to classes beyond those originally intended.

Further, the IVP chart introduces a new term with respect to pipeline integrity, a “Moderate Consequence Area” (“MCA”) and establishes specific requirements that pertain to this subcategory. Specifically, PHMSA seeks to add requirements for pipe operating at greater than 20% SMYS rather than 30% SMYS threshold for “low stress” pipelines in the current natural gas pipeline requirements. While the IVP chart provides a basic definition of an MCA, there is no explanation of why an MCA designation is proposed, or how an MCA should be treated.

API and AOPL also submit that the newly introduced terminology “moderate consequence area” is overly complex, and develops a complicated layer of regulation beyond the existing framework, which goes beyond what is necessary. PHMSA should not move forward with this subcategory. Such extensive changes will be more appropriately addressed by a full discussion of changes to the integrity management requirements in a rulemaking, informed by appropriate public notice and comment.

II. The Engineering Critical Assessment (ECA) Requirements Should Be Refined

While PHMSA has more clearly explained what is involved in an ECA in the revised IVP chart, API and AOPL submit that further clarification and consideration of additional elements is needed. Additionally, API and AOPL suggest that the current elements in the ECA be reexamined and a more detailed description of their application to the ECA process be provided. Specifically, PHMSA has included close interval survey (“CIS”), coating survey, and interference survey remaining life fatigue analysis as factors to consider for an ECA, but they have little or no relation to construction and manufacturing threats.

The note above box number 6 in the IVP chart indicates that PHMSA intends to further develop ECA guidelines. API and AOPL would appreciate the opportunity to be involved in and/or comment on this process.

III. Pipeline Sampling

The draft IVP chart includes a “Materials Verification Process” that would require cut-out sampling and testing to establish pipe material properties to cover each unique combination of pipe type and vintage, for all pipelines operating in high and moderate consequence areas. The IVP chart suggests that sampling may be required in cases where pipeline operators have already hydrotested their pipeline under this process, creating needless redundancy. If a pipeline is subjected to a hydrotest, there is little value in also requiring extensive material testing to verify the strength of the pipe since the hydrotest would verify the intended MAOP. Moreover, integrating cut-out sampling and

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4 The moderate consequence area is defined in the IVP chart as non-HCA pipe in Class 4, 3, or 2 locations, & Class 1 locations with 1 house/occupied site in PIR.
strength and chemical property testing, as proposed, confuses time dependent integrity reassessment methodologies with a one-time establishment of MAOP. The sampling and testing process would more appropriately be considered for use as part of the ECA.

IV. Pipeline Evaluation Methods Should Be Expanded

The IVP chart provides four methods to establish an MAOP: pressure test with a “spike” test, derate the pipeline, conduct an ECA, or replace the pipe. API and AOPL note that pipelines are constructed with many different diameters, carry different commodities, and operate in and through different terrains and populations. Consequently, the methodologies used to evaluate pipeline integrity should be carefully tailored to the unique characteristics of individual pipeline segments. PHMSA should include latitude for pipeline operators in selecting the most appropriate set of data and the methods of engineering analysis as the basis for establishing MAOP. The hazardous liquid Risk-Based Alternative in §195.303 could be broadened and used as the basis for all pipeline ECAs regardless of operations, construction date, material, or other pipe properties.

API and AOPL request that PHMSA include alternative methods for evaluating pipelines, so an evaluation process is employed that fits individual pipeline characteristics. Other methods of confirming MAOP could include direct assessment, in situ NDE (consistent with Step 11 and Box B on the revised PHMSA Draft IVP Chart; 9/10/2013), aboveground inspection technologies, and new, undiscovered methods of characterizing pipe properties and yield strength.

V. Low Stress Pipelines Should Be Removed From the Verification Process

API and AOPL commend PHMSA for removing consideration of low stress lines for Class 1 and 2 areas in the IVP chart. However, the IVP chart continues to inappropriately focus attention on low-pressure pipelines. Failure mechanisms associated with pressure failures are not a factor for such pipelines given their low operating pressures. For example, the IVP chart indicates that low pressure pipelines would be subjected to a process that relies heavily on pressure testing in addition to a spike test. This testing is inconsistent with the pressures experienced by low stress pipelines and is more likely to result in yielding of pipe that would never operate at pressures that approach the pressure of the spike test. Intricate requirements for cut-out sampling and strength and chemical property testing of these low pressure pipelines are also inconsistent with the nature of how low stress pipelines are operated because pipe strength has little bearing on the likely failure modes.

VI. Spike Tests Should Not Be Required

NTSB recommendation (P-11-14) suggests that the grandfather clause in 49 C.F.R. § 192.619 be deleted and all gas transmission pipelines constructed before 1970 be subjected to a hydrostatic pressure test that incorporates a spike test. A spike test may be useful in assessing specific anomalies or segments identified through an operators integrity management program, it is not as useful in verifying safe operating pressure
across entire pipeline systems or segments. Consequently, API and AOPL submit that spike tests should not be required across the board for all pipelines. Rather, more traditional pressure testing for establishment of MAOP should be applied.

VII. **MAOP and IMP Should Not Be Used Interchangeably**

In portions of the IVP chart, it appears that the notions of MAOP and IMP have been conflated. Given that MAOP is the actual maximum allowable pressure for a pipeline segment,\(^5\) whereas IMP\(^6\) is the process used by pipeline operators to validate the integrity of their lines, API and AOPL request that the IVP chart be revised so that the two terms are not used interchangeably.

API and AOPL also submit that PHMSA should not address issues regarding MAOP verification and integrity management requirements in the same rulemaking. MAOP and integrity verification are two distinct, highly technical processes. Conducting an overlapping review of MAOP and integrity verification in a single verification process may distract from accomplishing the goal of advancing pipeline integrity. The two processes should be considered separately.

VIII. **Technical Clarification**

As a minor technical matter, it appears that the IVP chart includes a footnote with no corresponding notation. As such, API and AOPL request that PHMSA identify where the note should be attributed, or remove the note from the IVP chart altogether. Additionally, Note 3 is too restrictive. Developing a process for ensuring information is traceable, verifiable, and complete can include a number of different document types. Finding the actual MTR’s for a section of pipe can be extremely difficult, and there are other types of documentation that do not have chemical & mechanical properties, can be used to determine pipe properties (AFE records, POs, hydrostatic tests, etc.), and are traceable.

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\(^5\) See 49 C.F.R. § 192.3.

\(^6\) The Gas IMP rule “specifies how pipeline operators must identify, prioritize, assess, evaluate, repair and validate the integrity of gas transmission pipelines that could, in the event of a leak or failure, affect High Consequence Areas (HCAs) within the United States” available at [http://primis.phmsa.dot.gov/gasimp/](http://primis.phmsa.dot.gov/gasimp/).
IX. Conclusion

API and AOPL request that PHMSA modify the IVP chart consistent with these comments. AOPL and API are interested in supporting any efforts directed on further development of the IVP and modifications made to address these comments and those offered by others.

Sincerely,

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