



Mountain Valley Pipeline Project

Docket No. CP16-10-000

Implementation Plan

December 20, 2017 Supplement

(Public)

December 2017

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LIST OF ACRONYMS AND ABBREVIATIONS

CEII	critical energy infrastructure information
Commission	Federal Energy Regulatory Commission
dBA	A-weighted decibels
EI	Environmental Inspector
EIS	Environmental Impact Statement
FERC	Federal Energy Regulatory Commission
HDD	Horizontal Direction Drill
LiDAR	light detection and ranging
L _{dn}	day-night sound level
Mountain Valley	Mountain Valley Pipeline, LLC.
MVP	Mountain Valley Project
NSA	noise sensitive area
OEP	FERC Office of Energy Projects
Order	Order Issuing Certificate for the Mountain Valley Project, Docket No. CP16-10-000, issued on October 13, 2017.
SEAP	Safety and Environmental Awareness Program
Secretary	Secretary of the Commission
USGS	U.S. Geological Survey
WVDEP	West Virginia Department of Environmental Protection
ZCC	Zone of Critical Concern

IMPLEMENTATION OF CONDITIONS FROM THE ORDER

ENVIRONMENTAL CONDITION NO. 1

The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets, and shall include all of the staff's recommended facility locations identified in conditions 16, 17, and 23. **As soon as they are available, and before the start of construction**, Mountain Valley and Equitrans shall each file any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the order. All requests for modifications of environmental conditions of the order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

The exercise of eminent domain authority granted under Natural Gas Act Section 7(h) in any condemnation proceedings related to the Mountain Valley Pipeline (MVP) Project or Equitrans Expansion Project EEP must be consistent with the facilities and locations approved in the Commission Order. The right of eminent domain granted under Natural Gas Act Section 7(h) does not authorize either Mountain Valley or Equitrans to increase the size of the natural gas pipelines approved in the Commission Order to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

Implementation Plan for Environmental Condition No. 1

October 31, 2017 Submission

As soon as they are available, and before the start of construction, Mountain Valley will file any revised detailed survey alignment maps/sheets as required in the condition. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

Mountain Valley acknowledges that the exercise of eminent domain authority granted under NGA section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations and that the right of eminent domain granted under NGA section 7(h) does not authorize Mountain Valley to increase the size of its natural gas pipelines or aboveground facilities to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

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Mountain Valley is filing the final Issue for Construction alignment sheets in Attachment IP-4a. The alignment sheets reflect all facilities approved by the Order and post-Order changes, including the adoption of Conditions 15 (Variation 250) and 22 (Pigg River HDD). In addition, certain minor modifications have been made to the design and location of minor components within the aboveground project facilities. All changes are depicted in the final plot plans in Attachment IP-4b (CEII).

ENVIRONMENTAL CONDITION NO. 2

Mountain Valley and Equitrans shall each file detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area.**

This requirement does not apply to extra workspace allowed by the FERC *Upland Erosion Control, Revegetation, and Maintenance Plan* and/or minor field realignments per landowner needs and requirements, which do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
- b. implementation of endangered, threatened, or special concern species mitigation measures;
- c. recommendations by state regulatory authorities; and
- d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.

Implementation Plan for Environmental Condition No. 2

October 31, 2017 Submission

Mountain Valley agrees to this condition and will implement it as written.

December 20, 2017 Supplement

Mountain Valley acknowledges that the Director of OEP must approve, in writing, all route realignments or facility relocations, and staging areas, laydown/contractor yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary of the Commission (Secretary).

The final alignment sheets submitted as Attachment IP-4a herewith include the Project changes that are identified in this Implementation Plan:

- Attachment IP-5a includes minor route deviations that do not affect other landowners or sensitive environmental areas such as wetlands and have been approved by the landowner.

As indicated in Environmental Condition No. 5, these minor deviations do not require any additional approvals by the Commission.

- Attachment IP-5b includes reductions within the certificated limits of disturbance that affect individual or multiple landowners. These minor changes are not realignments or facility relocations. As such, these minor realignments do not require any additional approvals by the Commission under Environmental Condition No. 5.
- Attachment IP-5c1 includes minor route deviations that affect multiple landowners or sensitive environmental areas. These minor deviations have been approved by affected landowners. The landowner approvals are included as Attachment IP-5c2 (PRIVILEGED). Mountain Valley requests approval of the variances and modifications listed in Attachment IP-5c1.

Mountain Valley reviewed each deviation/reduction with respect to Section 7 and Section 404:

- For the species evaluated during Section 7 consultation, plus the candy darter (proposed to be listed as a threatened species), the attachments include summaries that show the deviations/reductions will have no effect on fish, mussels, Rusty patch bumble bee, or plant species. The attachments also include summaries of the changes in tree clearing by bat habitat type. The deviations/reductions result in an overall net decrease in tree clearing for each bat habitat type.
- The attachments include summaries that show the deviations/reductions will have no additional impacts with respect to Corps-jurisdictional features that are currently approved or under review by each Corps District.

ENVIRONMENTAL CONDITION NO. 3

Within 60 days of their acceptance of a Certificate and before construction begins, Mountain Valley and Equitrans shall each file their respective Implementation Plans for review and written approval by the Director of OEP. Mountain Valley and Equitrans must each file revisions to their plans as schedules change. The plans shall identify:

- a. how Mountain Valley and Equitrans will each implement the construction procedures and mitigation measures described in their application and supplements (including responses to staff data requests), identified in the final EIS, and required by the Order;
- b. how the Mountain Valley and Equitrans will each incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
- c. the number of EIs assigned to each project and spread, and how Mountain Valley and Equitrans will each ensure that sufficient personnel are available to implement the environmental mitigation;
- d. company personnel, including EIs and contractors, who will receive copies of the appropriate materials;
- e. the location and dates of the environmental compliance training and instructions Mountain Valley and Equitrans will each give to all personnel involved with construction and restoration (initial and refresher training as the projects progress and personnel change) with the opportunity for OEP staff to participate in the training sessions;
- f. the company personnel (if known) and specific portion of the company's organization having responsibility for compliance;
- g. the procedures (including use of contract penalties) that Mountain Valley and Equitrans will each follow if noncompliance occurs; and
- h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - i. the completion of all required surveys and reports;
 - ii. the environmental compliance training of onsite personnel;
 - iii. the start of construction; and
 - iv. the start and completion of restoration.

Implementation Plan for Environmental Condition No. 3

Mountain Valley submitted responses to subparts 6a through 6h on October 31, 2017. In this submission, Mountain Valley supplements subpart 6e.

October 31, 2017 Submission of Subpart 6e

All on-site Project personnel, including the Chief Inspector, non-destructive testing crews, craft inspectors, office personnel, contractor supervisors, contractor foremen and laborers, subcontractors, EIs (including FERC's third-party monitors), and all other Project personnel will be required to attend a Safety and Environmental Awareness Program (SEAP) training session prior to entering any Project area.

During this training session, on-site personnel will be informed of the authority of the EIs and FERC's third-party monitors and will be trained on the implementation of the environmental mitigation measures appropriate to their job responsibilities and company expectations. The requirements applicable to the individual crew member's duties will be presented and discussed for emphasis. In addition, training will be held for all newly hired personnel before they may commence work on the Project. Follow-up refresher training will be held throughout the construction of the Project to ensure that the mitigation required for the Project is clear to onsite construction and inspection personnel.

Following each training session, all personnel will be required to acknowledge by signature that he or she understands the environmental compliance requirements associated with the Project and agrees to adhere to all requirements presented during the training session. Each individual successfully completing the SEAP training will be issued a Project hard hat sticker. Only individuals displaying the hard hat sticker will be allowed into active Project areas.

OEP personnel and other resource agency personnel are welcome to attend any or all SEAP training sessions. Visitors to the site and workers added after contractor mobilization will receive SEAP training on-site by either an EI or designated Construction Inspector utilizing Project-specific training documents.

The times and locations for the SEAP training sessions have yet to be determined. Mountain Valley will supplement this Implementation Plan with the event information.

December 20, 2017 Supplement to Subpart 6e

Mountain Valley conducted its initial SEAP training sessions on December 11 and 12, 2017. See Attachment IP-6e. Mountain Valley will supplement with information for additional SEAP training sessions when scheduled.

ENVIRONMENTAL CONDITION NO. 16

Prior to construction, Mountain Valley shall adopt Variation 250 into its proposed route. As part of its Implementation Plan, Mountain Valley shall file with the Secretary the results of all environmental surveys, an updated 7.5-minute USGS topographic quadrangle map, and a large-scale alignment sheet that illustrates this route change. (*section 3.5.1.11*)

Implementation Plan for Environmental Condition No. 16

October 31, 2017 Submission

Mountain Valley will address this condition in a subsequent filing.

December 20, 2017 Supplement

Mountain Valley has adopted Variation 250 into its route.

Updated 7.5-minute U.S. Geological Survey (USGS) topographic quadrangle maps showing Variation 250 adopted into the proposed route are included in Attachment IP-16a. Updated alignment sheets showing Variation 250 adopted into the proposed route are included in Attachment IP-16b. The updated alignment sheets are also included in the alignments sheets filed as Attachment IP-4a.

Surveys for rare, threatened and endangered species have been completed for Variation 250. The results are shown below:

- Plants – smooth coneflower and three-parted violet = negative findings;
- Eagle aerial surveys = negative findings;
- Portals surveys = negative findings; and
- Loggerhead shrike surveys = negative findings.

Updated survey results for cultural resources, streams, and wetlands are included in Attachment IP-16c.

ENVIRONMENTAL CONDITION NO. 17

Prior to construction, Mountain Valley shall file with the Secretary, for review and approval by the Director of OEP, a segment-specific construction and operation access plan for the area between mileposts 237.6 and 240.3, that includes access road MVPRO- 279.01. The plan shall incorporate the measures proposed in Mountain Valley’s July 20, 2017 filing to minimize and mitigate impacts resulting from use of the road. (*section 3.5.1.12*)

Implementation Plan for Environmental Condition No. 17

October 31, 2017 Submission

Prior to construction, Mountain Valley will file with the Secretary, for review and approval by the Director of OEP, the required access plan.

December 20, 2017 Supplement

Attachment IP-17 depicts a segment-specific plan for the area between mileposts 237.6 and 240.3 that includes access road MVP-RO-279.01. The plan incorporates the following measures, which are consistent with the measures proposed in Mountain Valley’s July 20, 2017 filing:

- Mountain Valley narrowed the access road (inclusive of the width of the existing road) to 15 feet on straight portions and 20 feet on curved portions.
- Mountain Valley narrowed the workspace to 20 feet on straight portions and 30 feet on curved portions.
- Mountain Valley mitigated the impacts on the VOF parcel by replacing the portion of the VOF parcel affected by access road MVP-RO-279.01 with 10.25 acres of undisturbed, high quality forested lands adjacent to Poor Mountain Natural Area Preserve. The VOF approved Mountain Valley’s application on October 16, 2017.

The segment-specific plan is also reflected in the alignment sheets filed as Attachment IP-4a.

ENVIRONMENTAL CONDITION NO. 18

Prior to construction, Mountain Valley shall file landowner-specific crossing plans developed in coordination with the affected landowners which contain impact avoidance, minimization, or mitigation measures, as appropriate, for review and written approval of the Director of OEP. The landowner-specific crossing plans shall be prepared in relation to the draft EIS comments in the following accession numbers: 20161024-5011 (water well), 20161212-5046 (steep ravines), 20161212-5234 (forest impacts, road frontage), 20161213-5021 (cattle and hay operations), 20161223-0033 (gravel road and reconfiguration of temporary workspaces), 20161228-0073 (water well and waterline for the campground), and 20170324-5140 (home under construction and septic system). (*section 3.5.3.1*)

Implementation Plan for Environmental Condition No. 18

October 31, 2017 Submission

A table summarizing the requested information is included as Attachment IP-18a. Specific plans and documentation of landowner coordination are referenced in the summary table and included in Attachments IP-18b through 18d.

December 20, 2017 Supplement

An updated table summarizing the requested information is included as Attachment IP-18a. Specific plans and documentation of landowner coordination are referenced in the summary table and included in Attachments IP-18b through 18d filed on October 31, 2017, and Attachment IP-18e (PRIVILEGED) included with the current filing.

ENVIRONMENTAL CONDITION NO. 20

Prior to construction, Mountain Valley shall file with the Secretary, for review and written approval by the Director of OEP, a revised *Karst Mitigation Plan* that includes monitoring of all potential karst areas for subsidence and collapse using the same acquired Light Detection and Ranging (LiDAR) monitoring methods and procedures currently proposed to monitor for earth movements at landslide hazard areas within the Jefferson National Forest. LiDAR data shall be provided in a form that is conducive to comparison of repeat surveys, such as a Digital Elevation Model or Digital Terrain Model. (*section 4.1.2.5*)

Implementation Plan for Environmental Condition No. 20

October 31, 2017 Submission

Attachment IP-20 contains the revised Karst Mitigation Plan, which includes the February 2017 revisions shown in red text that were requested by the Commission, and current revisions shown in blue text. The current revisions include the addition of Section 5.0 to the Karst Mitigation Plan, which discusses post-construction monitoring of the right-of-way in karst terrain.

December 20, 2017 Supplement

Mountain Valley has made further revisions to the Karst Mitigation Plan to address requests by the WVDEP. All revisions subsequent to February 2017 are shown in blue. The revised Karst Mitigation Plan and transmittal letter to WVDEP are included in Attachment IP-20.

ENVIRONMENTAL CONDITION NO. 22

Prior to construction, Mountain Valley shall file with the Secretary, for review and written approval of the Director of OEP, source, location, and quantities of water which would be used for dust control. (*section 4.3.2.1*)

Implementation Plan for Environmental Condition No. 22

October 31, 2017 Submission

The sources, locations, and quantities of water for dust control depend upon numerous factors, including construction locations and progress, weather, soil type, vegetation cover, and road conditions. The FEIS recognized this. *See* FEIS at 4-113 (“The amount of water that would be used for dust control is highly dependent on the conditions at the time of work”). A table listing the proposed withdrawal sources, locations, and anticipated maximum daily quantities of water that Mountain Valley expects to use for dust control is included in Attachment IP-22.

December 20, 2017 Supplement

Mountain Valley updated the city/town information for a few sources. An updated version of Attachment IP-22 is included.

ENVIRONMENTAL CONDITION NO. 23

Prior to construction, Mountain Valley shall adopt into its proposed pipeline route the alternative alignment for the crossing of the Pigg River and adopt a horizontal directional drill (HDD) as the crossing method. As part of its Implementation Plan, Mountain Valley shall file with the Secretary a revised alignment sheet, a summary comparison of impacts between the HDD alignment and the original alignment, and an HDD Contingency Plan, for the review and approval of the Director of OEP. (*section 4.3.2.2*)

Implementation Plan for Environmental Condition No. 23

October 31, 2017 Submission

Mountain Valley will address this condition in a subsequent filing.

December 20, 2017 Supplement

Mountain Valley adopts the alternative alignment for crossing the Pigg River and adopts an HDD as the crossing method. A revised alignment sheet is included as Attachment IP-23a. This alignment sheet is also included with the sheets filed in response to Environmental Condition No. 4. An HDD Contingency Plan is included as Attachment IP-23b. A summary comparison of impacts between the HDD alignment and the original alignment is included as Attachment IP-23c.

ENVIRONMENTAL CONDITION NO. 24

Prior to construction, Mountain Valley shall file with the Secretary, for review and written approval of the Director of OEP, water supply contingency plans, prepared in coordination with the Public Service/Supply Districts, outlining measures to minimize and mitigate potential impacts on public surface water supplies with intakes within 3 miles downstream of the workspace, and Zones of Critical Concern within 0.5 mile of the workspace. The measures shall include, but not be limited to, providing advance notification to water supply owners prior to the commencement of pipeline construction. (*section 4.3.2.2*)

Implementation Plan for Environmental Condition No. 24

October 31, 2017 Submission

- a. Public water suppliers with surface water intakes located within three miles downstream of a workspace

Mountain Valley identified public surface water suppliers that have supply intakes located within three miles downstream from where the proposed alignment or workspace crosses the source stream or river:

State / Surface Water	Nearest MP	Distance/Direction to Construction Right-of-way
West Virginia		
Gauley River, Craigsville Public Service District	110.1	0.6 mile northwest
Virginia		
Roanoke River, Western Virginia Water Authority	235.6	1.2 mile west

Mountain Valley developed water supply contingency plans in coordination with the Craigsville Public Service District and the Western Virginia Water Authority. Mountain Valley sent the plans to the suppliers for final approval. Mountain Valley will file the plans with the Commission prior to construction.

- b. Public water suppliers with surface water ZCC within 0.5 mile of the workspace

Mountain Valley identified public water suppliers in West Virginia where a Project workspace is located within 0.5-mile of a Zone of Critical Concern (ZCC) (note that there are no established ZCCs in Virginia). Mountain Valley developed water supply contingency plans in coordination with the suppliers. Mountain Valley sent the plans to the suppliers for final approval. Attachment IP-24b1 includes that status of the consultations. The finalized plans are included in Attachments IP-24b2. As Mountain Valley finalizes the remaining plans, it will file such plans with the Commission.

December 20, 2017 Supplement

Attachment IP-24b1 has been updated to include the current status of consultations. Attachment IP-24b2 has been updated to include additional finalized plans.

ENVIRONMENTAL CONDITION NO. 25

Prior to construction, Mountain Valley shall file with the Secretary, for review and approval by the Director of OEP, either a plan to maintain a 15 foot buffer from the tributary to Foul Ground Creek or proposed mitigation measures to minimize impacts on the waterbody. (*section 4.3.2.2*)

Implementation Plan for Environmental Condition No. 25

October 31, 2017 Submission

Mountain Valley will address this condition in a subsequent filing.

December 20, 2017 Supplement

Mountain Valley revised the pipeline centerline to increase the buffer between the pipeline and the tributary to Foul Ground Creek from less than 1 foot to 8 feet. The revised alignment, as well as the original alignment for comparison, are shown in Attachment IP-25.

The revised alignment will allow a near perpendicular crossing of the waterbody within the existing project limit of disturbance. The revised alignment is reflected in the permit applications currently under review by the U.S. Army Corps of Engineers – Norfolk District and the Virginia Department of Environmental Quality. To minimize impacts on the waterbody, Mountain Valley will utilize dry-ditch construction method during installation of the pipeline crossing of the tributary to Foul Ground Creek. Mountain Valley will install timber mats spanning the waterbody outside the pipeline trench, install silt fences on both sides of the crossing, and install geotex fabric under the timber mats to minimize impacts. Mountain Valley will stockpile the existing stream substrate for reuse during the restoration process and, following installation, return the waterbody and adjacent buffer area to pre-existing contours and conditions.

ENVIRONMENTAL CONDITION NO. 28

Mountain Valley shall not begin construction of the proposed facilities **until**:

- a. all outstanding and required biological surveys for federally listed species are completed and filed with the Secretary;
- b. the FERC staff completes any necessary Endangered Species Act Section 7 informal and formal consultation with the FWS; and
- c. Mountain Valley has received written notification from the Director of OEP that construction and/or use of mitigation (including implementation of conservation measures) may begin. (*section 4.7.1.3*)

Implementation Plan for Environmental Condition No. 28October 31, 2017 Submission

Mountain Valley will comply with this condition and implement it as written.

December 20, 2017 Supplement

On November 21, 2017, USFWS transmitted its Biological Opinion to FERC. Mountain Valley will conduct and file outstanding portal surveys as additional land access is granted.

ENVIRONMENTAL CONDITION NO. 30

Prior to construction, Mountain Valley shall file with the Secretary evidence of landowner concurrence with the site-specific residential construction plans for all locations where construction work areas will be within 10 feet of a residence. Mountain Valley shall also file with the Secretary a site-specific residential construction plan, including site-specific justification for locating project components within 50 feet of structures located on parcel VA-GI-5673 at about MP 216.6. (*section 4.8.2.2*)

Implementation Plan for Environmental Condition No. 30

October 31, 2017 Submission

Site-Specific Residential Construction Plans for Work Areas within 10 Feet of Residence	Status of Landowner Concurrence
RSS-H600-175	Signed
RSS-H600-005	Signed
RSS-H600-098	Signed
RSS-H600-099	Signed
RSS-H600-038	Signed
RSS-H600-173	Signed
RSS-H600-044	Signed
RSS-H600-012	Signed
RSS-H600-009	Signed
RSS-H600-010	Signed
RSS-H600-203	Signed
RSS-H600-061	Signed
RSS-H600-067	Signed
RSS-H600-105	Signed
RSS-H600-204	In Progress
RSS-H600-065	In Progress
RSS-H600-033	In Progress
RSS-H600-034	In Progress

The signed plans are included as Attachment IP-30a (PRIVILEGED). Mountain Valley will file the outstanding plans when they are signed.

With regard to parcel VA-GI-5673, the site-specific residential construction plan is included as Attachment IP-30b. Access road MVP-CR-258.01 is necessary due to this portion of the pipeline being isolated upstream and downstream of MP 216.8 by numerous stream road crossings. Additionally, Mountain Valley proposed this existing road as access to avoid the environmental impacts that would accompany new road construction. Mountain Valley has committed to narrowing the limits of disturbance along the section of road nearest the structures on the property, will place construction safety fence at the edge of the LOD, and will maintain full access to the property during construction activities. Mountain Valley will also use the existing road with only minor upgrades to the extent practicable, including only minor limb clearing where necessary.

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Updates are included in red below

Site-Specific Residential Construction Plans for Work Areas within 10 Feet of Residence	Status of Landowner Concurrence
RSS-H600-175	Signed
RSS-H600-005	Signed
RSS-H600-098	Signed
RSS-H600-099	Signed
RSS-H600-038	Signed
RSS-H600-173	Signed
RSS-H600-044	Signed
RSS-H600-012	Signed
RSS-H600-009	Signed
RSS-H600-010	Signed
RSS-H600-203	Signed
RSS-H600-061	Signed
RSS-H600-067	Signed
RSS-H600-105	Signed
RSS-H600-204	In Progress
RSS-H600-065	In Progress
RSS-H600-033	Easement signed; Landowner has refused to sign RSS plan
RSS-H600-034	Easement signed; Landowner has refused to sign RSS plan

The signed easements noted above are included as Attachment IP-30b (PRIVILEGED).

ENVIRONMENTAL CONDITION NO. 33

Prior to construction of the Pig River Horizontal Directional Drill (HDD) crossing, Mountain Valley shall file with the Secretary an HDD noise analysis identifying the existing and projected noise levels at each noise sensitive area (NSA) within 0.5 mile of the HDD entry and exit site. If noise attributable to the HDD is projected to exceed a day-night sound level (L_{dn}) of 55 decibels on the A weighted scale (dBA) at any NSA, Mountain Valley shall file with the noise analysis a mitigation plan to reduce the projected noise levels for the review and written approval by the Director of OEP. During drilling operations, Mountain Valley shall implement the approved plan, monitor noise levels, and make all reasonable efforts to restrict the noise attributable to the drilling operations to no more than an L_{dn} of 55 dBA at the NSAs. (*section 4.11.2.3*)

Implementation Plan for Environmental Condition No. 33

October 31, 2017 Submission

Mountain Valley will address this condition in a subsequent filing.

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Using the proposed HDD plan (see the Implementation Plan for Environmental Condition No. 23), Mountain Valley contracted SLR International Corporation (SLR) to conduct the required noise study. SLR's report is included as Attachment IP-33.

There are five NSAs (NSAs 1–5) within 0.5 mile of the east site, and one NSA (NSA 6) within 0.5 mile of the west site. SLR developed its noise analysis to include both east-to-west drilling and west-to-east drilling. SLR modeled both existing and projected sound levels at these NSAs generated by typical HDD drilling equipment. Pullback operations utilize comparable equipment to drilling operations; therefore, sound levels generated during pullback were predicted to be the same as for drilling. Pullback would be conducted following drilling operations and is currently planned from west-to-east due to geographic restrictions. Therefore, the drilling rig and associated noise are planned to be located at the east site during pullback. As a result, SLR evaluated noise levels at NSAs 1-5 for both drilling and pullback and at NSA 6 for drilling only.

The contribution of sound levels associated with HDD drilling from west-to-east would not exceed the day-night sound level (L_{dn}) threshold of 55 A-weighted decibels (dBA) at NSA 6. As a result, noise mitigation is not required at the west site.

For the east site, the noise threshold would be exceeded at NSAs 1 and 2 for both drilling and pullback, but would not be exceeded for either activity at NSAs 3-5. As a result, noise mitigation is required at the east site for NSAs 1 and 2, but is not required at NSAs 3-5. As described in the report, noise levels at NSAs 1 and 2 can be reduced to below the threshold by installing a 12- to 16-foot high barrier between the east site and NSAs 1 and 2. In addition, Mountain Valley is evaluating whether to use the west site as the entry point. This would allow the noise levels associated with drilling the borehole to be below the 55 dBA L_{dn} contribution threshold for all identified NSAs. Because drilling the borehole would take approximately 60 days, drilling west-to-east would significantly minimize the time that activities at the east site would exceed the specified noise thresholds. Under this configuration, the drill rig and associated equipment would

only be required at the east site for approximately one week during pullback activities. Regardless of the final configuration, Mountain Valley will comply with all noise monitoring requirements during all HDD operations.