

TR Number	22-56
Primary Reference	192.13
Secondary Reference	192.911, GMA G-192-17
Purpose	Review and develop GM as appropriate in light of Amendment 192-132
Origin/Rationale	Amdt. 192-132
Notes	Requiring a management of change to all transmission lines
Assigned to	IMCORR

**Note:** Revisions are shown in **yellow highlight** and **red font**.

## Section 192.13

~~This guide material is under review following Amendment 192-132.~~

### 1 GENERAL

See Guide Material Appendix G-192-17.

### 2 OTHERWISE CHANGED

~~Also, see~~ See the "Glossary of Commonly Used Terms" under §192.3 for definition of "otherwise changed."

*[Editorial note: GM 3 below is all new to GM under §192.13, so not underlined. See above LB notes about changes in red font and yellow highlight.]*

### 3 MANAGEMENT OF CHANGE (MOC) ~~(§192.911(k))~~

There are **several code requirements** ~~two sections of Part 192 Subpart O~~ that require operators to manage changes. **Operators may satisfy these requirements by implementing a standalone MOC procedure or by incorporating them into a written MOC process that also addresses other applicable code sections requiring MOC.** **An operator is encouraged to consolidate procedures, where possible, to reduce the number of potential conflicts between multiple documents.** ~~First, §192.909 requires operators to document changes to the written IMP. Second, §192.911(k) requires operators to develop a written MOC process to track changes to the integrity of the pipeline. Operators may combine these requirements into a single MOC process or use separate processes. For guidance regarding IMP changes, including PHMSA OPS notification, see guide material under §192.909.~~

An operator may be able to manage changes that impact **the integrity of the pipeline design, construction, operations, and maintenance of onshore transmission pipelines or the environment** through current practices **if as long as** the operator can demonstrate that current practices meet the requirements of ASME **B31.8S, Section 11**. Examples of current practices that manage change include the following.

- Budgeting and mapping processes that record physical pipeline changes.
- Work management systems that document **transmission design approvals**, permit requirements and acquisitions.
- O&M procedures or IMP manual revision logs that track written procedure changes.
- Organizational charts and job descriptions that establish individual responsibilities.
- Maps, aerial photos, or logs that document the annual HCA review.

The following guide material is based on the requirements of ASME **B31.8S, Section 11**.

#### 3.1 Objective.

ASME **B31.8S, Section 11(a)** requires that MOC procedures be developed to identify and consider the impact of changes to a pipeline system and its integrity. MOC is a process for recognizing, evaluating, implementing, communicating, and documenting these changes. Both major and minor changes that impact the integrity of the pipeline, whether permanent or temporary, must be addressed.

#### 3.2 Types of changes.

The operator must address changes that fall into four categories: technical, physical, procedural, and organizational. Any single change may affect more than one of these categories. Examples of changes that could impact pipeline integrity are as follows.

- (a) Increase or decrease of MAOP.
- (b) Increase or decrease of maximum operating pressure (see §192.917(e)).
- (c) Changes to cathodic protection systems.
- (d) Changes to criteria, such as grading criteria for ILI, ECDA, or ICDA of covered segments per §192.903.
- (e) Discovery of the threat.
- (f) Change in status (i.e., active, inactive) of a threat.
- (g) Corrections to pipeline attributes (e.g., diameter, wall thickness).
- (h) New, remediated, replaced, or re-routed piping or appurtenances.
- (i) Modification of gas quality or composition, such as the following.
  - (1) Propane-air mixture.
  - (2) Vaporized LNG.
  - (3) Biofuels.
  - (4) New production gas.
- (j) Cyclic loading.
- (k) Significant change in operating temperature.
- (l) Flow velocity or direction.
- (m) Documentation from pipe inspections.
- (n) Discovering threats from continuing surveillance (e.g., encroachments, unmonitored activity on ROW).
- (o) Geological events (e.g., subsidence, slips, earthquakes).
- (p) Conversion of service.

### 3.3 MOC process components.

An MOC process includes several components as outlined below. These components ensure that changes that affect the integrity of the pipeline are identified, analyzed, documented, and communicated.

*Note:* These components are not required to be completed in the order shown and may be combined with others or may not be applicable.

- (a) Reason for change.

Reason for change begins with the identification of a problem or needed improvement that affects pipeline integrity. Some examples are as follows.

  - (1) To comply with new or revised regulations (e.g., PHMSA, state).
  - (2) To incorporate process improvements or best practices.
  - (3) To improve reliability of pipe or equipment.
  - (4) System optimization.
  - (5) Safety improvements.
  - (6) Changes in technology.
- (b) Authority for approving changes.

The operator should identify the level of authority necessary to approve various types of changes. When approving the change, consideration should be given to seeking input from other affected stakeholders. Some changes may be pre-approved in accordance with an operator's procedure. For example, when a criterion is met for a certain defect, the procedure may authorize repair or replacement of the pipe.
- (c) Analysis of implications.

The operator must evaluate the change and determine the impact to the integrity of the pipeline. The analysis should determine if the change increases or decreases threats to the pipeline.

  - (1) If it is determined that the change does impact threats, the operator is required to further analyze the implications of the change and continue to follow the MOC process. These implications could include the following.
    - (i) Data integration.
    - (ii) Training and qualifications.
    - (iii) Procedures.
    - (iv) Public education programs.
    - (v) Available resources (e.g., personnel, equipment, costs).
    - (vi) Changes to the IMP program.
    - (vii) Communication requirements.
    - (viii) Threat analysis.

- (2) If the change does not impact threats, then no further action is required under the MOC process; however, the change should be evaluated to determine whether it affects the IMP (see guide material under §192.909).
- (d) Acquisition of required work permits.  
Examples of permits that might be needed include the following.
  - (1) Street opening or public right-of-way.
  - (2) Railroad right-of-way.
  - (3) Private property easements.
  - (4) Environmental (e.g., water removal and runoff, air quality control).
  - (5) Archaeological.
- (e) Documentation.  
The MOC process requires changes that affect pipeline integrity be documented (ASME [B31.8S, Section 11\(a\)](#)). Types of documentation may include the following.
  - (1) Forms.
  - (2) Electronic files.
  - (3) Meeting minutes.
  - (4) Memos.
  - (5) Emails.
  - (6) Manual revision logs.
  - (7) Other items identified in the operator's communication plan.
- (f) Communication of change to affected parties.  
Changes that impact the integrity of the pipeline are required to be communicated to affected parties (ASME [B31.8S, Section 11\(a\)](#)) and consideration should be given to communicate the change in accordance with the operator's communication plan (ASME [B31.8S, Section 10](#)).
  - (1) Examples of affected parties include the following.
    - (i) Employees.
    - (ii) Management.
    - (iii) Contractors.
    - (iv) Regulatory agencies.
    - (v) Local agencies.
    - (vi) The public.
  - (2) Examples of what might be communicated include the following.
    - (i) Description of change.
    - (ii) Duration of change (permanent versus temporary).
    - (iii) Urgency of change.
    - (iv) Affected personnel.
    - (v) Affected pipeline system.
    - (vi) Affected procedure.
    - (vii) Parties responsible for implementing the change.
  - (3) Examples of how changes can be communicated include the following.
    - (i) Work management system.
    - (ii) Maps or drawings.
    - (iii) Training.
    - (iv) Meeting minutes.
    - (v) Memo.
    - (vi) Email.
    - (vii) Internet or intranet.
    - (viii) Manual revision or log.
  - (4) Some changes might need to be communicated immediately while others, such as mapping upgrades, might be communicated on a periodic basis.
- (g) Time limitation.  
To ensure immediate needs are addressed in a timely manner, the request for change should indicate the level of urgency. Time related factors related to a change might include the following.
  - (1) Effective date.
  - (2) Expiration date.
  - (3) Permanent or temporary.

- (4) Communication timeframe.
- (5) Regulatory compliance dates (e.g., repair of a dent).
- (6) Permit requirements.
- (7) Training and qualification completion.
- (h) Qualification of staff.

The operator is required to evaluate whether the change impacts the qualification of staff (ASME [B31.8S, Section 11\(a\)](#)). Consideration should be given to the following.

  - (1) Does the change add new qualification requirements?
  - (2) Does the change require refresher training?

## 3.4 Examples.

- *Example 1* - A plug valve is going to be replaced with a ball valve to accommodate an In-Line Inspection (ILI). The replacement of a plug valve allows for the passage of pigging equipment, thus allowing the assessment type to be changed from direct assessment or pressure testing to ILI. This valve replacement is a change to the pipeline system and, therefore, must be addressed in the MOC process.

*Note: "Responses" for this example are shown in italics.*

- (a) Reason for change - *New valve installed to accommodate ILI.*
- (b) Authority for approving changes - *Valve has been authorized by management.*
- (c) Analysis of implications:
  - (1) Data integration - *Need to update records and maps.*
  - (2) Training and qualifications - *Personnel are trained and qualified for this type of valve.*
  - (3) Procedures - *O&M procedures for this type of valve are in place and changes are not needed.*
  - (4) Public education programs - *No changes are necessary.*
  - (5) Available resources (e.g., personnel, equipment, costs) - *Valve, equipment, and personnel are available.*
  - (6) Changes to the IMP program - *Yes, assessment method to be changed.*
  - (7) Communication requirements - *Normal O&M procedures.*
  - (8) Threat analysis - *No change in threats.*

Based upon the analysis of this change, it is determined that the installation does not affect the pipeline integrity because there are no changes in the threats to this pipeline. Therefore, it is not necessary to complete the steps beyond the "analysis of implications" component. Since this change is intended to affect the IMP because of the change in the assessment method, the operator is required to address this change under §192.909 and document this analysis per §192.947.

- *Example 2* - A dent is discovered as a result of an ILI. Based upon initial analysis of the data, the dent is classified as an immediate repair condition in accordance with §192.933.

*Note: "Responses" for this example are shown in italics.*

- (a) Reason for change - *Dent identified.*
- (b) Authority for approving changes - *Repair procedure describes authorization to repair by composite sleeve.*
- (c) Analysis of implications:
  - (1) Data integration - *Need to update records and maps.*
  - (2) Training and qualifications - *Personnel are trained and qualified for this type of repair, but due to extended time, refresher training and evaluation is recommended.*
  - (3) Procedures - *O&M procedures for this type of sleeve are in place and changes are not needed.*
  - (4) Public education programs - *No changes are necessary.*
  - (5) Available resources (e.g., personnel, equipment, costs) - *Need to order sleeve, but equipment and personnel are available.*
  - (6) Changes to the IMP program - *Maybe, depending on the information gathered during the exposure of the pipeline and the potential change to risk weighting.*
  - (7) Communication requirements - *Appropriate personnel.*
  - (8) Threat analysis - *To be determined based upon information obtained after the pipe has been exposed.*

Based upon the analysis of this change, it is determined that the known condition of the dent affects the integrity of the pipeline; therefore, it is required to complete the remaining MOC steps.

- (d) Acquisition of required work permits - *No permits are required based upon location.*
- (e) Documentation - *Existing procedures provide documentation requirements.*
- (f) Communication of change to affected parties:
  - (1) Affected parties - *Employees and management.*

- (2) Information to be communicated:
  - (i) Description of change - *Repair dent.*
  - (ii) Duration of change (permanent versus temporary) - *Permanent.*
  - (iii) Urgency of change - *Completed by next Tuesday.*
  - (iv) Affected personnel - *Plant personnel in District D.*
  - (v) Affected pipeline system - *Mile Post 63+48 of Line 101.*
  - (vi) Affected procedure - *Procedure 4.6.2, Installation of a composite sleeve.*
  - (vii) Parties responsible for implementing the change - *IMP Team.*
- (3) How changes are going to be communicated - *Email.*
- (g) Time limitation:
  - (1) Effective date - *9/10/08.*
  - (2) Expiration date - *9/15/08.*
  - (3) Permanent or temporary - *Permanent.*
  - (4) Communication timeframe - *9/10/08.*
  - (5) Regulatory compliance dates (e.g., repair of a dent) - *Repair within 5 days.*
  - (6) Permit requirements - *None.*
  - (7) Training and qualification completion - *9/12/08.*
- (h) Qualification of staff:
  - (1) Does the change add new qualification requirements? – No.
  - (2) Does the change require refresher training? – Yes.

- Example 3 – Corrections to pipeline attributes. A pipe diameter correction is required based on an excavation and direct examination by field personnel.

Note: "Responses" for this example are shown in italics.

- (a) Reason for change – *As found pipe diameter is different from existing records.*
- (b) Authority for approving changes – *Qualified personnel identification and verification of pipe diameter during direct examination.*
- (c) Analysis of implications:
  - (1) Data integration - *Need to update existing records, maps, and the risk model.*
  - (2) Training and qualifications - *Personnel are qualified and trained to submit as found in field conditions.*
  - (3) Procedures – *Recordkeeping procedures for updates or changes to pipe attributes are currently in place.*
  - (4) Public education programs - *No changes are necessary.*
  - (5) Available resources (e.g., personnel, equipment, costs) – *No additional resources are required.*
  - (6) Changes to the IMP program – *Yes, a change in pipe diameter will impact SMYS, PIR, risk model, and the potential change to risk weighting.*
  - (7) Communication requirements - *Appropriate personnel.*
  - (8) Threat analysis - *To be determined based on information obtained after records are updated and risk model or weighting is completed.*
- (d) Acquisition of required work permits - *No permits are required.*
- (e) Documentation - *Existing procedures provide documentation requirements.*
- (f) Communication of change to affected parties:
  - (1) Affected parties - *Employees and management.*
  - (2) Information to be communicated:
    - (i) Description of change – *Change of pipeline diameter in the system of record.*
    - (ii) Duration of change (permanent versus temporary) - *Permanent.*
    - (iii) Urgency of change – *Update the system of record and mapping by next Wednesday.*
    - (iv) Affected personnel – *All field operations, engineering, and IMP personnel.*
    - (v) Affected pipeline system - *Mile Post 63+48 of Line 101.*
    - (vi) Parties responsible for implementing the change – *GIS & IMP Teams.*
  - (3) How changes are going to be communicated – *Mapping system updates and email.*
- (g) Time limitation:
  - (1) Effective date - *5/24/2023.*
  - (2) Permanent or temporary - *Permanent.*

### 3.5 Effects of ~~IMP and onshore gas transmission~~ pipeline system changes.

It should be recognized that ~~pipeline system changes might~~ could cause changes to an operator's IMP. ~~changes in the IMP could cause changes to the integrity of the pipeline; in turn, pipeline system changes might cause changes~~

~~in the IMP.~~ ASME B31.8S, Section 11, provides several examples. Table 192.944i shows some additional examples that might initiate the use of the formal MOC process.

	IMP CHANGE THAT AFFECTS PIPELINE	PIPELINE CHANGE THAT AFFECTS THE IMP
<b>Technical</b>	An assessment of a pipeline may drive a reduction in MAOP.	Lowering the MAOP on a pipeline may cause a reduction or elimination of an HCA within the BAP and a change in assessment intervals. (Note: Lowering below 20% SMYS may remove the IMP requirements.)
<b>Physical</b>	Because of repeated failures of XYZ valves, all XYZ valves are removed and replaced.	A found threat on a pipeline may cause a review of "like" pipelines which may increase the risk ranking of HCAs.
<b>Procedural</b>	A desired assessment method may require a change to a pipeline.	The installation of a valve may now allow a different assessment method and procedures to be used.
<b>Organizational</b>	New management changes IMP to use ILI on all pipelines. Pipelines must be made piggable.	The acquisition of an additional transmission company might result in the operator combining programs and re-ranking all pipelines.
<b>Design</b>	Changes or deviations from an operator's established design standards.	A design change that deviates from design standards to address abnormal conditions, jurisdictional constraints, or unique project limitations.
<b>Operational</b>	Changes to OQ, IMP written plans, or operating procedures.	Conditions that necessitate deviation from an operator's standard O&M procedures.
<b>Environmental</b>	Environmental considerations or requirements, identified through transmission patrols or other monitoring activities.	Site changes or natural forces (e.g., erosion, flooding, seismic activity) might require design or procedural modifications to minimize potential environmental impacts.

TABLE 192.13944i

## Section 192.911

### 1 GENERAL ...

### 2 FRAMEWORK ...

### 3 MANAGEMENT OF CHANGE (MOC) (§192.911(k))

See guide material under §192.13.

~~There are two sections of Part 192 Subpart O that require operators to manage changes. First, §192.909 requires operators to document changes to the written IMP. Second, §192.911(k) requires operators to develop a written MOC process to track changes to the integrity of the pipeline. Operators may combine these requirements into a single MOC process or use separate processes. For guidance regarding IMP changes, including PHMSA OPS notification, see guide material under §192.909.~~

~~An operator may be able to manage changes that impact the integrity of the pipeline through current practices as long as the operator can demonstrate that current practices meet the requirements of ASME 11. Examples of current practices that manage change include the following.~~

~~(a) Budgeting and mapping processes that record physical pipeline changes.~~



- ~~(b) Work management systems that document permit requirements and acquisitions.~~
- ~~(c) O&M procedures or IMP manual revision logs that track written procedure changes.~~
- ~~(d) Organizational charts and job descriptions that establish individual responsibilities.~~
- ~~(e) Maps, aerial photos, or logs that document the annual HCA review.~~

The following guide material is based on the requirements of ASME 11.

### ~~3.1 Objective.~~

~~ASME 11(a) requires that MOC procedures be developed to identify and consider the impact of changes to a pipeline system and its integrity. MOC is a process for recognizing, evaluating, implementing, communicating, and documenting these changes. Both major and minor changes that impact the integrity of the pipeline, whether permanent or temporary, must be addressed.~~

### ~~3.2 Types of changes.~~

~~The operator must address changes that fall into four categories: technical, physical, procedural, and organizational. Any single change may affect more than one of these categories. Examples of changes that could impact pipeline integrity are as follows.~~

- ~~(a) Increase or decrease of MAOP.~~
- ~~(b) Increase or decrease of maximum operating pressure (see §192.917(e)).~~
- ~~(c) Changes to cathodic protection systems.~~
- ~~(d) Changes to criteria, such as grading criteria for ILI, ECDA, or ICDA.~~
- ~~(e) Discovery of the threat.~~
- ~~(f) Change in status (i.e., active, inactive) of a threat.~~
- ~~(g) Corrections to pipeline attributes (e.g., diameter, wall thickness).~~
- ~~(h) New, remediated, replaced, or re-routed piping or appurtenances.~~
- ~~(i) Modification of gas quality or composition, such as the following.~~
  - ~~(1) Propane-air mixture.~~
  - ~~(2) Vaporized LNG.~~
  - ~~(3) Biofuels.~~
  - ~~(4) New production gas.~~
- ~~(j) Cyclic loading.~~
- ~~(k) Significant change in operating temperature.~~
- ~~(l) Flow velocity or direction.~~
- ~~(m) Documentation from pipe inspections.~~
- ~~(n) Discovering threats from continuing surveillance (e.g., encroachments, unmonitored activity on ROW).~~
- ~~(o) Geological events (e.g., subsidence, slips, earthquakes).~~
- ~~(p) Conversion of service.~~

### ~~3.3 MOC process components.~~

~~An MOC process includes several components as outlined below. These components ensure that changes that affect the integrity of the pipeline are identified, analyzed, documented, and communicated.~~

~~Note: These components are not required to be completed in the order shown and may be combined with others or may not be applicable.~~

- ~~(a) Reason for change.~~

~~Reason for change begins with the identification of a problem or needed improvement that affects pipeline integrity. Some examples are as follows.~~

  - ~~(1) To comply with new or revised regulations (e.g., PHMSA, state).~~
  - ~~(2) To incorporate process improvements or best practices.~~
  - ~~(3) To improve reliability of pipe or equipment.~~
  - ~~(4) System optimization.~~
  - ~~(5) Safety improvements.~~
  - ~~(6) Changes in technology.~~
- ~~(b) Authority for approving changes.~~

~~The operator should identify the level of authority necessary to approve various types of changes. When approving the change, consideration should be given to seeking input from other affected stakeholders. Some changes may be pre-approved in accordance with an operator's procedure. For example, when a criterion is met for a certain defect, the procedure may authorize repair or replacement of the pipe.~~
- ~~(c) Analysis of implications.~~

~~The operator must evaluate the change and determine the impact to the integrity of the pipeline. The analysis should determine if the change increases or decreases threats to the pipeline.~~

- ~~(1) If it is determined that the change does impact threats, the operator is required to further analyze the implications of the change and continue to follow the MOC process. These implications could include the following:
  - ~~(i) Data integration.~~
  - ~~(ii) Training and qualifications.~~
  - ~~(iii) Procedures.~~
  - ~~(iv) Public education programs.~~
  - ~~(v) Available resources (e.g., personnel, equipment, costs).~~
  - ~~(vi) Changes to the IMP program.~~
  - ~~(vii) Communication requirements.~~
  - ~~(viii) Threat analysis.~~~~
- ~~(2) If the change does not impact threats, then no further action is required under the MOC process; however, the change should be evaluated to determine whether it affects the IMP (see guide material under §192.909).~~
- ~~(d) Acquisition of required work permits.~~

~~Examples of permits that might be needed include the following.~~

  - ~~(1) Street opening or public right-of-way.~~
  - ~~(2) Railroad right-of-way.~~
  - ~~(3) Private property easements.~~
  - ~~(4) Environmental (e.g., water removal and runoff, air quality control).~~
  - ~~(5) Archaeological.~~
- ~~(e) Documentation.~~

~~The MOC process requires changes that affect pipeline integrity be documented (ASME 11(a)).~~

~~Types of documentation may include the following.~~

  - ~~(1) Forms.~~
  - ~~(2) Electronic files.~~
  - ~~(3) Meeting minutes.~~
  - ~~(4) Memos.~~
  - ~~(5) Emails.~~
  - ~~(6) Manual revision logs.~~
  - ~~(7) Other items identified in the operator's communication plan.~~
- ~~(f) Communication of change to affected parties.~~

~~Changes that impact the integrity of the pipeline are required to be communicated to affected parties (ASME 11(a)) and consideration should be given to communicate the change in accordance with the operator's communication plan (ASME 10).~~

  - ~~(1) Examples of affected parties include the following.
    - ~~(i) Employees.~~
    - ~~(ii) Management.~~
    - ~~(iii) Contractors.~~
    - ~~(iv) Regulatory agencies.~~
    - ~~(v) Local agencies.~~
    - ~~(vi) The public.~~~~
  - ~~(2) Examples of what might be communicated include the following.
    - ~~(i) Description of change.~~
    - ~~(ii) Duration of change (permanent versus temporary).~~
    - ~~(iii) Urgency of change.~~
    - ~~(iv) Affected personnel.~~
    - ~~(v) Affected pipeline system.~~
    - ~~(vi) Affected procedure.~~
    - ~~(vii) Parties responsible for implementing the change.~~~~
  - ~~(3) Examples of how changes can be communicated include the following.
    - ~~(i) Work management system.~~
    - ~~(ii) Maps or drawings.~~
    - ~~(iii) Training.~~
    - ~~(iv) Meeting minutes.~~
    - ~~(v) Memo.~~
    - ~~(vi) Email.~~
    - ~~(vii) Internet or intranet.~~~~



- (viii) Manual revision or log.
- ~~(4) Some changes might need to be communicated immediately while others, such as mapping upgrades, might be communicated on a periodic basis.~~
- ~~(g) Time limitation.~~
  - ~~To ensure immediate needs are addressed in a timely manner, the request for change should indicate the level of urgency. Time related factors related to a change might include the following.~~
    - ~~(1) Effective date.~~
    - ~~(2) Expiration date.~~
    - ~~(3) Permanent or temporary.~~
    - ~~(4) Communication timeframe.~~
    - ~~(5) Regulatory compliance dates (e.g., repair of a dent).~~
    - ~~(6) Permit requirements.~~
    - ~~(7) Training and qualification completion.~~
- ~~(h) Qualification of staff.~~
  - ~~The operator is required to evaluate whether the change impacts the qualification of staff (ASME 11(a)). Consideration should be given to the following.~~
    - ~~(1) Does the change add new qualification requirements?~~
    - ~~(2) Does the change require refresher training?~~

## 3.4 Examples:

- ~~Example 1—A plug valve is going to be replaced with a ball valve to accommodate an In-Line Inspection (ILI). The replacement of a plug valve allows for the passage of pigging equipment, thus allowing the assessment type to be changed from direct assessment or pressure testing to ILI. This valve replacement is a change to the pipeline system and, therefore, must be addressed in the MOC process.~~
  - ~~Note: "Responses" for this example are shown in italics.~~
  - ~~(a) Reason for change—*New valve installed to accommodate ILI.*~~
  - ~~(b) Authority for approving changes—*Valve has been authorized by management.*~~
  - ~~(c) Analysis of implications:~~
    - ~~(1) Data integration—*Need to update records and maps.*~~
    - ~~(2) Training and qualifications—*Personnel are trained and qualified for this type of valve.*~~
    - ~~(3) Procedures—*O&M procedures for this type of valve are in place and changes are not needed.*~~
    - ~~(4) Public education programs—*No changes are necessary.*~~
    - ~~(5) Available resources (e.g., personnel, equipment, costs)—*Valve, equipment, and personnel are available.*~~
    - ~~(6) Changes to the IMP program—*Yes, assessment method to be changed.*~~
    - ~~(7) Communication requirements—*Normal O&M procedures.*~~
    - ~~(8) Threat analysis—*No change in threats.*~~
  - ~~Based upon the analysis of this change, it is determined that the installation does not affect the pipeline integrity because there are no changes in the threats to this pipeline. Therefore, it is not necessary to complete the steps beyond the "analysis of implications" component. Since this change is intended to affect the IMP because of the change in the assessment method, the operator is required to address this change under §192.909 and document this analysis per §192.947.~~
- ~~Example 2—A dent is discovered as a result of an ILI. Based upon initial analysis of the data, the dent is classified as an immediate repair condition in accordance with §192.933.~~
  - ~~Note: "Responses" for this example are shown in italics.~~
  - ~~(a) Reason for change—*Dent identified.*~~
  - ~~(b) Authority for approving changes—*Repair procedure describes authorization to repair by composite sleeve.*~~
  - ~~(c) Analysis of implications:~~
    - ~~(1) Data integration—*Need to update records and maps.*~~
    - ~~(2) Training and qualifications—*Personnel are trained and qualified for this type of repair, but due to extended time, refresher training and evaluation is recommended.*~~
    - ~~(3) Procedures—*O&M procedures for this type of sleeve are in place and changes are not needed.*~~
    - ~~(4) Public education programs—*No changes are necessary.*~~
    - ~~(5) Available resources (e.g., personnel, equipment, costs)—*Need to order sleeve, but equipment and personnel are available.*~~
    - ~~(6) Changes to the IMP program—*Maybe, depending on the information gathered during the exposure of the pipeline and the potential change to risk weighting.*~~
    - ~~(7) Communication requirements—*Appropriate personnel.*~~
    - ~~(8) Threat analysis—*To be determined based upon information obtained after the pipe has been exposed.*~~

Based upon the analysis of this change, it is determined that the known condition of the dent affects the integrity of the pipeline; therefore, it is required to complete the remaining MOC steps.

(d) Acquisition of required work permits—~~No permits are required based upon location.~~

(e) Documentation—~~Existing procedures provide documentation requirements.~~

(f) Communication of change to affected parties:

(1) Affected parties—~~Employees and management.~~

(2) Information to be communicated:

(i) Description of change—~~Repair dent.~~

(ii) Duration of change (permanent versus temporary)—~~Permanent.~~

(iii) Urgency of change—~~Completed by next Tuesday.~~

(iv) Affected personnel—~~Plant personnel in District D.~~

(v) Affected pipeline system—~~Mile Post 63+48 of Line 101.~~

(vi) Affected procedure—~~Procedure 4.6.2, Installation of a composite sleeve.~~

(vii) Parties responsible for implementing the change—~~IMP Team.~~

(3) How changes are going to be communicated—~~Email.~~

(g) Time limitation:

(1) Effective date—~~9/10/08.~~

(2) Expiration date—~~9/15/08.~~

(3) Permanent or temporary—~~Permanent.~~

(4) Communication timeframe—~~9/10/08.~~

(5) Regulatory compliance dates (e.g., repair of a dent)—~~Repair within 5 days.~~

(6) Permit requirements—~~None.~~

(7) Training and qualification completion—~~9/12/08.~~

(h) Qualification of staff:

(1) Does the change add new qualification requirements?—~~No.~~

(2) Does the change require refresher training?—~~Yes.~~

## 3.5 Effects of IMP and pipeline system changes.

It should be recognized that changes in the IMP could cause changes to the integrity of the pipeline; in turn, pipeline system changes might cause changes in the IMP. ASME 11 provides several examples. Table 192.911i shows some additional examples that initiate the use of the formal MOC process.

	IMP CHANGE THAT AFFECTS PIPELINE	PIPELINE CHANGE THAT AFFECTS THE IMP
Technical	An assessment of a pipeline may drive a reduction in MAOP.	Lowering the MAOP on a pipeline may cause a reduction or elimination of an HCA within the BAP and a change in assessment intervals. (Note: Lowering below 20% SMYS may remove the IMP requirements.)
Physical	Because of repeated failures of XYZ valves, all XYZ valves are removed and replaced.	A found threat on a pipeline may cause a review of "like" pipelines which may increase the risk ranking of HCAs.
Procedural	A desired assessment method may require a change to a pipeline.	The installation of a valve may now allow a different assessment method and procedures to be used.
Organizational	New management changes IMP to use ILI on all pipelines. Pipelines must be made piggable.	The acquisition of an additional transmission company might result in the operator combining programs and re-ranking all pipelines.

TABLE 192.911i

4 QUALITY ASSURANCE / QUALITY CONTROL ...

5 SAFETY AND ENVIRONMENTAL CONSIDERATIONS ...