

12-F Reinstating and Pressure Testing of Service Lines/Abandonment or Deactivation of Facilities

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[1.0 SCOPE](#)

[2.0 REGULATORY REFERENCES](#)

[3.0 PROCEDURE](#)

[4.0 TRAINING/QUALIFICATIONS](#)

[5.0 DOCUMENTATION/FORMS](#)

[6.0 RELATED DOCUMENTS](#)

[7.0 APPENDICES](#)

1.0 SCOPE

This chapter describes procedures for reinstating and pressure testing service lines that have been disconnected, and abandonment or deactivation procedures for DENC and DESC pipelines facilities.

2.0 REGULATORY REFERENCES

49 CFR Part 192 §§ [192.725](#), [192.727](#)

3.0 PROCEDURE

[3.1 Reinstating and Pressure Testing of Service Lines \[192.725\]](#)

[3.2 Abandonment or Deactivation of Facilities \[192.727\]](#)

[3.3 Abandonment of Pipeline Facilities \[192.727\]](#)

[3.4 Abandonment of Service Lines \[192.727\]](#)

[3.5 Temporary Inactivation of Pipelines \[192.727\]](#)

[3.6 Discontinuation of Service \[192.727\]](#)

3.1 Reinstating and Pressure Testing of Service Lines [192.725]

- (a) Each *service line* that is disconnected from the *main* shall be tested from the point of disconnection to the meter cock in the same manner as a new service line, before being reinstated. This requirement is applicable to any service line physically disconnected at any point along the service line between the main and the meter cock for any reason.
- (b) Service lines are to be tested according to Chapter 9 - Pressure Test Requirements, [3.4 Pressure test requirements for steel service lines](#) and [3.2 Pressure test requirements for all plastic pipelines](#).
- (c) If provisions are made to maintain continuous service via the use of a bypass, any portion of the original service line employed in the bypass does not have to be tested.

3.2 Abandonment or Deactivation of Facilities [192.727]

The decision to abandon a section of piping, in place or through removal, shall be made on the basis of an assessment that includes consideration of current and future land use, safety hazards, and environmental damage.

3.3 Abandonment of Pipeline Facilities [192.727]

- (a) *Pipeline* abandonment activities shall be documented on the associated construction or retirement drawing.
- (b) Pipeline segments to be abandoned (permanently removed from service) shall be effectively isolated from all sources and supplies of *gas*.
 - (1) Physically isolate the segment to be abandoned from adjacent facilities via existing valves, stop-off equipment and/or squeeze off.
 - (2) Valves to be used for isolation shall be carefully examined to confirm their operability and seal off effectiveness.
 - (3) Precautions shall be taken to prevent accidental ignition. Also, reference [Chapter 12-I Prevention of Accidental Ignition](#) and [Chapter 1-E Safety, 3.4 Control of Static Electricity](#).
 - (4) Eliminate potential spark hazards from cathodic protection current (jumper wire or notify cp technician to turn off rectifiers affecting the pipeline segment to be abandoned).
 - (5) Consider the potential for liquid hydrocarbons to be present in segments that contain sags/low points. Any such liquids *should* be removed prior to venting the abandoned segment.
- (c) Pipeline segments to be abandoned shall be vented (blown down) and purged in accordance with [Chapter 11-H Purging](#), prior to physical disconnection.
- (d) Physically disconnect the abandoned pipeline segment from all sources and supplies of gas.
 - (1) In the event complete shut off has not been achieved, reference [Chapter 12-I Prevention of Accidental Ignition, section 3.0\(f\)](#).
 - (2) When abandonment requires a pipeline segment to be cut in more than one place, the first cut should be made at the point of highest elevation.
 - (3) After the cut is completed, the opening of the abandoned segment should be completely sealed (in accordance with item [3.3\(e\)](#)) before proceeding to the next cut.
 - (4) If more than one weld is to be made, the first weld should be at the point of lowest elevation.
 - (5) Set up an approved fire extinguisher at the work site, placing it upwind where practical. Keep the extinguisher available throughout any purging,

- (e) All ends, vents and other openings of pipelines that are to be abandoned in place shall be permanently sealed with normal end closures such as welded or screwed caps, screwed plugs, blind flanges, mechanical *joint* caps and plugs, foam with tape, or welding steel plate to pipe ends. Steel pipelines *may* also be sealed by pinching and welding the ends.
- (f) When abandoned, the following pipeline segments shall be filled with cementitious grout, concrete or flowable fill to prevent future pipe collapse from corrosion and/or external loading.
 - (1) Abandoned pipeline segments, 6" and larger, that cross beneath roads, waterways or environmentally sensitive areas (including wetlands)
 - (2) Abandoned pipeline segments beneath railroads, 4" and larger
 - (3) Abandoned segments in casings; where the casing pipe meets the size and location criteria listed in items [3.3\(f\)\(1\)](#) and [3.3\(f\)\(2\)](#), the carrier pipe and the space between the carrier pipe and casing shall be filled.
- (g) Inactive aboveground facilities (valves, risers, vault covers, valve box covers, test stations, etc.) joined with the abandoned main should be removed. Any remaining voids shall be filled with a suitable compacted material.
- (h) Any operable valves that remain in abandoned segments should be left in the closed position.
- (i) Aboveground pipelines, including service line risers, that are abandoned should be cut-off below grade and removed.
- (j) Each valve box or vault that is abandoned *must* be filled with a suitable compacted material. Valve box tops and vault covers should be removed.
- (k) For any abandoned pipeline facility that crosses over, under or through a commercially navigable waterway, a report should be filed with the National Pipeline Mapping System (NPMS) National Repository. The report must contain the location, size, date, method of abandonment, and a certification that the facility has been abandoned in accordance with all applicable laws. Contact GIS Services to arrange NPMS reporting.
- (l) If any oil, distillate, or free-flowing liquid is found in a pipeline that is being abandoned or removed, Environmental should be notified and the liquid should be tested for PCBs in accordance with 40 CFR 761. See [Chapter 1-E Safety, 3.7 PCB Testing](#), for additional information on capture and testing of pipeline liquids.

3.4 Abandonment of Service Lines [[192.727](#)]

- (a) Services that have been inactive for 60 months should be reviewed annually to determine which services should be abandoned. Reasons may exist for the service to remain active (possible new business, unable to abandon at the tee, etc).
- (b) Abandoned service lines connected to an active main shall be disconnected as close to the main as practical. Inserts in retired self-tapping tees shall be left up on all pipelines. The end of the remaining active service line shall be capped. The end of the abandoned portion of the service line nearest the main shall be capped or otherwise sealed.

For situations where it is not possible to abandon the service within 12 inches of the main, a valid reason should be written on the paper service order before it is scanned in (preferably in the remarks section).

State Specific: South Carolina

These remaining service line "stubs" should be forwarded to GIS so that they can be drawn in the services layer.

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- (c) Abandoned service lines should be cut and capped or otherwise sealed underground outside of the building wall. If the abandoned service line must be terminated inside of the building wall, the pipe shall be cut and capped as close to the wall as possible. Meter risers and headers should be dismantled and removed from the premises. Where an underground service line has entered through a basement wall, the pipe or pipe hole extending through the wall shall be sealed to prevent water intrusion.

3.5 Temporary Inactivation of Pipelines [[192.727](#)]

- (a) The temporary inactivation of transmission and distribution facilities (other than services) should generally be avoided. Temporary inactivation of a pipeline may be considered if there is temporarily no need for a pipeline but future use is expected. Upon management approval, any such pipeline shall be disconnected from all sources of gas, vented, purged of gas, have all openings sealed and be filled with an inert gas to a minimum temperature stabilized pressure of 10 psig.
- (b) Temporary inactive pipelines shall be maintained in accordance with the requirements for similar active pipelines, unless otherwise approved by *Engineering*.

3.6 Discontinuation of Service [[192.727](#)]

- (a) Whenever service is discontinued to a customer, one or more of the following actions shall be taken:
 - (1) A locking device and lock shall be installed in or on the inlet meter set valve.
 - (2) A mechanical device or fitting that prohibits the flow of gas shall be installed in the service line or meter assembly.
 - (3) The customer's piping must be disconnected and sealed.
- (b) In all cases the open service line pipe ends shall be capped, plugged or otherwise sealed.
- (c) Inactive service lines shall be maintained in accordance with the requirements for similar active pipelines, unless otherwise approved by Engineering.

State Specific: South Carolina

BLACK PLASTIC

- (a) When old black plastic services (PE 3306) are abandoned, the entire length of black pipe (including the pipe in the service tee compression *outlet*) should be abandoned. Black plastic services should be abandoned and replaced with new pipe when they are found leaking or damaged, or when they require relocation. When the compression tee is reused the rubber seal shall be replaced with a new seal designed for that tee.
- (b) Black plastic services that have leaked, have been damaged or have been relocated should be assigned a high priority for replacement or retirement in the Black Plastic Service Log. High priority services should be addressed first and in a timely manner. When circumstances delay remedial action on high priority black plastic services, these services shall be *leak* surveyed annually at intervals not to exceed 15 months. The most recent leak survey date should be recorded in the Black Plastic Service Log.
- (c) All other black plastic services are to be replaced in accordance with each division's black plastic replacement plan which includes the following elements:

- (1) Identification of black plastic services using:
 - (i) Information from Gas Leak Reports and database
 - (ii) Review of service cards
 - (A) Scan cards with suspected black plastic
 - (B) Update addresses if necessary
 - (C) Investigate nearby areas for additional black plastic services
 - (iii) History of known areas containing black plastic services
 - (A) Data from senior employees
 - (B) Old lists that may contain relevant information
 - (iv) GIS (to find clusters of installed black plastic services)
 - (v) Isolated (anode) risers likely connected to black plastic services
 - (vi) Previous retirements with plastic left underground (remove remaining black plastic and tees)
- (2) Create a detailed black plastic service log:
 - (i) Previous maintenance and repairs
 - (ii) Previous replacements
 - (iii) Planned actions
 - (iv) Include services, tee, and risers
 - (v) Frequently update this log
 - (vi) Store as record
- (3) Prioritize and organize service replacement order:
 - (i) Previously squeezed lines
 - (ii) Comparison of location with leak calls
 - (iii) Nearby replacements
 - (iv) Installation date

- (vi) Population of area
- (4) Establish timeline:
 - (i) Should not exceed 5 years
 - (ii) Determination of crews, engineers/specialists, and inspectors needed
 - (A) Keep consistent crews and employees working on this project
- (5) Estimate costs:
 - (i) Labor
 - (A) Company labor
 - (B) Contractor labor (include additional bore cost for services crossing roads)
 - (ii) Materials
 - (A) Service line materials (pipe, tracer wire, etc)
 - (B) Tapping tee
 - (C) Meter set (if applicable)
- (6) Pre-construction replacement steps for black plastic services:
 - (i) DESC employee to visit each site prior to scheduling to:
 - (A) Identify difficulty of replacement and if any conflict exists. Taking into account costs and customer concerns associated with relocating or extending the customer's fuel line, determine if it would be beneficial to relocate the meter from its current location (back of the house, inside a fence, or other area with limited access).
 - (B) Determine any unusual conditions which will need to be addressed prior to service replacement. This includes, but is not limited to, highway permits and utility conflicts.
 - (C) Inspect the meter set to determine its condition and the need for replacement.
 - (ii) Customer notification:
 - (A) Notify the customer of service interruption and excavations. Customer should be notified by letter generated by CIS ([Black Plastic Service Letter](#) [PDF file]), door hanger ([Black Plastic Service Notification](#) [PDF file]), and personal visit. Construction activities and service interruption should be scheduled with respect to the customer's concerns.
 - (B) Provide the Customer Service Department with local office contact information to help address any questions regarding these replacements.

1. Contact South Carolina 811 (SC811) to locate all utilities in the area. See Chapter 11-C Damage Prevention, [Information to be supplied to SC811 Regarding Proposed Work by DESC](#) for additional information.
2. Continental Locator Device may be helpful to locate gas lines.
3. Contact other utilities or municipalities as required to locate facilities not covered by South Carolina 811 (SC811).
4. Contact the customer or property owner to attempt to locate facilities such as sprinkler systems, septic tanks, drain fields, propane lines, fuel lines, etc.

(D) Prepare a construction packet for each premise to include:

1. Copy of original service card (if available)
2. [½" IPS Black Plastic Checklist](#) (PDF file)
3. Locate ticket number
4. Permits
5. Service Card
6. Service Order

(E) Deliver construction packet to a qualified contractor.

(7) Construction replacement steps for black plastic services:

- (i) Verify premise address and call in Block Order.
- (ii) DESC personnel should complete a pre-job safety brief and discuss safety concerns in accordance with chapter 1-E Safety, [3.5 Pre-Job Safety Briefings](#).
- (iii) Locate the entire service from riser to main. When attempting to locate the service tee, the following methods may be used in this preferred order:
 - (A) Line locating instruments
 - (B) Service cards
 - (C) Fish tape
- (iv) Verify location of other utilities.
- (v) Determine depth of service line by digging and exposing in enough locations to have an adequate survey of service line depth.
- (vi) Excavate service at the main and riser following all trenching and shoring guidelines in chapter 12-B Leak Response, Leak

1010 – Construction Specifications (PDF file).

- (vii) Identify the type of coating covering service tee and main. Remove coating as necessary following all DESC procedures. Particular attention should be paid to chapter 1-E Safety, [3.6 Asbestos Containing Materials \(ACM\) or Presumed Containing Materials \(PACM\)](#), when removing asbestos containing materials.
- (viii) Remove enough coating to positively identify the service tee. Further information on tee identification is available from DESC resources (Procedural Manuals, SharePoint Libraries, etc); these resources will refer to the appropriate procedure(s) relevant to each type of tee.
- (ix) Follow all appropriate procedures to remove or maintain the existing service tee. Service line should be purged of gas in accordance with [Chapter 11-H Purging](#). The relevant service tee procedure will dictate whether to purge before or after tending to the service tee.
- (x) Inspect the riser. If not in acceptable condition, remove riser, noting style (anode, anodeless, compression fitting, etc.).
- (xi) Review the current location and depth of service line. Determine what construction methods will be used to install a new service line (if required). If service line is currently at an improper depth or otherwise unsuitable location (sharp bends, under trees, under building, etc), do not install new service line in the same location. Also, recall if service is being installed in a new location in order to relocate the meter. New service lines should be installed in an appropriate location at the specified depth as discussed in [D&I Procedure 1020 – Service Lines](#) (online manual).
- (xii) Install new service line in accordance with this manual and DESC Procedures.
 - (A) Preference is to use a weld-on service tee rather than a mechanical (bolt-on) tee.
 - (B) Use couplings only when necessary; amount of couplings used should be minimized.
 - (C) Install a new riser if discarded during the previous step.
- (xiii) Test, purge, and complete the new service installation in accordance with all procedures in this manual, including [D&I Procedure 1010 – Construction Specifications](#) (online manual), [Chapter 9 Pressure Test Requirements](#), and [Chapter 11-H Purging](#).
- (xiv) Call in Un-Block Order and return area to normal operating conditions.
- (xv) Leak survey the area after replacements are complete if the work was done in immediate response to a leak.
- (8) Post-construction replacement steps for black plastic services:
 - (i) Complete new service card, documenting all materials, sizes, and manufacturers used in the new service.
 - (ii) Complete the form [½" IPS Black Plastic Checklist](#) (PDF file) and send it to the designated department. The department should input all of the information on this form to the appropriate cells in the Black Plastic Replacement database section of WFM.
- (9) Revision of black plastic replacement plan and retention of records:
 - (i) Continuously update black plastic service status log.

- (ii) Verify replacement services are documented in CSR service panel.
- (iii) Retain records and completion reports for each replacement.
- (iv) Revisit plan and revise details as necessary.

4.0 TRAINING/QUALIFICATIONS

See the appropriate system Operator Qualification Program.

5.0 DOCUMENTATION/FORMS

System specific forms should be used where applicable.

State Specific: South Carolina

- [½" IPS Black Plastic Checklist](#) (PDF file)
- [Black Plastic Service Notification](#) (PDF file)
- [Black Plastic Service Letter](#) (PDF file)

6.0 RELATED DOCUMENTS

None at this time.

7.0 APPENDICES

State Specific: South Carolina

- [Design and Installation Manual \(DESC\)](#) (online manual)

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