

Operations Safety Management Plan – 304.c.(7)

Arco Deep 1-27 Oil and Gas Location

Loc ID #322539

December 2022



INTRODUCTION

TEP Rocky Mountain, LLC (“TEP”) has prepared the following Operations Safety Management Plan as an attachment to the Arco Deep 1-27 Form 2A to address the requirements under the Colorado Oil and Gas Conservation Commission (“COGCC”) Rule 602.d, which requires operators to establish and maintain a written operations safety management program to address change management and pre-startup safety procedures for all new and existing oil and gas locations. TEP strives to conduct all operations in a safe and orderly manner to eliminate and/or minimize the potential for injury, accidents, spills, or any potential impacts to public health, safety, welfare, the environment, and wildlife resources. This Operations Safety Management Plan details the key elements of TEP’s change management program and the pre-startup safety review for changes made to any new or existing Oil and Gas Location.

OPERATIONS SAFETY MANAGEMENT PROGRAM

Purpose

The purpose of this Operations Safety Management document is to describe how the company will identify and attempt to prevent potential threats to public health, safety, welfare, and the environment from changes made at designated locations and facilities.

Scope

The scope for the Operations Safety Management Program is a proactive plan, execution, and documentation on proposed new equipment and proposed significant modifications to existing equipment as applicable in the regulations. Best management industry practices will be used to ensure safe systems and conditions.

Program

The objective of the Operations Safety Management Program is to communicate the identification and mitigation of known risks during the design process and subsequently, the implementation process at designated locations and facilities. As part of the process, two means are used to capture this communication process:

1. Pre-Start Up Safety Review (PSSR) Appendix A – describes how the safety and technical review inspection is conducted prior to startup of any new or modified equipment or process at a location or facility.
2. Management of Change (MOC) Appendix B – describes how an operator records changes to technology, equipment, and procedure; and changes to facilities that affect a process.

Implementation

The PSSR and/or MOC process(es) will be determined and initiated by Engineering or Production Staff, with support from the Safety Department. The design process will be reviewed as the project develops. Prior to startup, the finalized plan will be reviewed, and an onsite walkthrough will be conducted. The checklist(s), with associated action items will be documented.

Documentation and Communication

Checklists and other associated documents will be stored in the company shared drive.

Record Keeping

All documentation of the proposed change to equipment or facilities at a site will be kept on record on TEP's internal servers for a period of no less than five (5) years. Upon formal written request by the COGCC, TEP will provide documentation of the specific change, as outlined above, to the COGCC within thirty (30) days of the request.

APPENDIX A
ARCO DEEP 1-27 DRILL PAD
PRE-START UP SAFETY REVIEW (PSSR)

1.0 Purpose

The purpose of this Pre-Startup Safety Review (PSSR) document is to establish and maintain a program to identify and mitigate risks to workers, environment, and property before startup and to comply with applicable regulations.

2.0 Scope

A Pre-Startup Safety Review (PSSR) will be administered by personnel in the Operations Department (e.g., Superintendents, Supervisors, Field Technicians, Measurement Technicians) with assistance from the Safety Department and will address the elements outlined in the regulations. PSSRs will be conducted on newly installed and significantly modified equipment as applicable in the regulations.

3.0 Program

The objective of the PSSR program is to assure that the following items have been adequately addressed and are in place prior to start-up of any new or significantly modified facility or process:

- 3.1. Construction, equipment, and modifications are in accordance with the design specifications and applicable codes.
- 3.2. Necessary safety, operating, maintenance and emergency procedures are in place and are adequate.
- 3.3. All safety and operability recommendations have been addressed and actions necessary for startup have been completed.
- 3.4. The training of each employee involved in the operating process has been completed.

4.0 Implementation

A walk-through inspection of newly installed or significantly modified equipment will be conducted prior to introducing fluids (e.g. natural gas, oil, condensate, water) to the equipment. The inspection may be conducted by a team of qualified personnel or a Subject Matter Expert (SME) designated by the Facility Supervisor or Superintendent. The intent of the inspection is to ensure that all equipment is properly installed and all safety equipment is functioning prior to startup.

5.0 Documentation

A PSSR Checklist will be used to document the inspection. This document and any other associated documents will be stored in the company shared drive.

Risk Safety Management PSSR checklist

Date: _____ Location: _____

Basic scope of work: _____

1. Process Vessels and Piping

- ☐ Piping/vessels have been reviewed and approved by the Facilities Engineering Group
- ☐ All pipe fittings are connected and tightened according to manufacturer specifications
- ☐ All tubing fittings are connected and tightened according to manufacturer specifications

2. Instrumentation & Electrical

- ☐ I&E equipment has been reviewed and approved by the Facilities Engineering Group
- ☐ I&E equipment has been connected to a power source
- ☐ I&E equipment is functioning properly
- ☐ All equipment properly bonded and grounded

3. Operability & Training

- ☐ Access to all valves/instruments, etc. is adequate for operation, isolation, and maintenance
- ☐ All gauges, meters, etc. are accessible and easy to read
- ☐ Platforms and ladders provide safe access to instruments, valves, PSVs, etc.
- ☐ Sample points/stations are easily accessible and oriented properly
- ☐ All necessary operating procedures have been written/updated
- ☐ Proper training/notification of personnel has been conducted
- ☐ Rotating equipment has been checked for lubrication, alignment, and rotation
- ☐ Guards, barriers, platforms, and openings installed
- ☐ Necessary integrity tests have been performed on equipment (hydro, air, etc.)
- ☐ P&IDs validated as-built, if available.
- ☐ Screens, orifices, filter elements, catalysts, vessel internals in place
- ☐ Construction/test blinds removed, flushing and draining complete, flanges checked for gaskets
- ☐ PSVs set properly (block valves car sealed open)
- ☐ Piping and equipment insulated, as needed
- ☐ Valves bull-plugged, as needed
- ☐ Area cleared of excess equipment

4. Safety & Environmental

- ☐ Working area is level/even, clear of debris, and free of slip hazards
- ☐ Area lighting is adequate for tasks required
- ☐ Tank vapor combustion equipment is functioning properly
- ☐ Storage tank spill containment is adequate and free of damage
- ☐ Stormwater BMPs are in place and free of damage
- ☐ All applicable signage is in place and legible
- ☐ HazCom inventory updated including new SDS procurement and training, if necessary

Risk Safety Management PSSR Action Items

Actions to be completed **prior** to startup (PTS):

[illegible]

Actions to be completed **after** startup (AS):

[illegible]

APPENDIX B
ARCO DEEP 1-27 DRILL PAD
MANAGEMENT OF CHANGE (MOC)

1.0 Purpose

The purpose of this Management of Change document is to establish and maintain a program to identify, mitigate, and communicate risks to workers, environment, and property for associated changes and to comply with applicable regulations.

2.0 Scope

A change review, also known as a Management of Change (MOC) form will be administered by personnel in the Engineering Department and/or the Operations Department with assistance from the Safety Department and will identify and mitigate known risks. An MOC will be conducted on proposed new added equipment and proposed significant modifications to existing equipment as applicable in the regulations.

3.0 Program

This Management of Change Program is in place to assure that the following items have been adequately addressed prior to installing new added equipment or significantly modifying existing equipment, procedures, and processes:

- 3.1. The technical basis for the proposed change and reasons why the change is needed (if there are significant impacts if the change is not implemented, this may be added to the justification for change(s)).
- 3.2. Potential impacts on existing facilities and equipment to include process chemicals, technology, and processes
- 3.3. Required modifications or additions to operating procedures
- 3.4. Potential impacts on worker safety and health
- 3.5. Potential impacts on the environment

4.0 Implementation

A meeting will be conducted to thoroughly review proposed changes to ensure that all equipment is properly designed prior to construction. The meeting participants may include, but are not limited to, Subject Matter Experts (SME) from the Operations Department, Engineering Department, Measurement Department, and the Environment Health & Safety Department. The level at which an employee will be allowed to approve changes will be determined by the MOC initiator by using the approval matrix box. In addition, a Pre-Startup Safety Review (PSSR) may be conducted prior to startup of the new or modified equipment, if required.



Date: 09/02/2022

Management of Change (MOC) Program

Rev.: 2

5.0 Documentation and Communication

Completion of the change review occurs when the MOC meeting is conducted and action items associated with the MOC form are closed. These documents will be stored for a period of three years. Documents can be provided to a third party within five business days. Records are updated periodically until closure of the MOC when all approved changes will be sent to the MOC distribution list and the final document is stored in the shared drive.