Cimarex Energy Co.

Gas Pipeline O&M Manual

CIMAREX ENEREGY

MIDSTREAM OPERATIONS AND MAINTANCE

POLICY STATEMENT & OPERATIONS PURPOSE OF MANUAL

The Oil Conservation Division's (OCD) has broadcasted many regulation guidelines of natural gas gathering system operators implementing an operations plan, including operational and best management practices, to minimize the waste of natural gas

Cimarex Energy Co. ("Company") recognizes the need and importance of constructing, operating, and maintaining its natural gas pipelines and related equipment in a safe condition. The Company is dedicated to protecting people first then property.

The Company is committed to complying with regulatory guidelines established be federal, state, and local laws. By doing so, we minimize the risk of accidents to employees, the public, public property, and property owned by the Company.

Records shall be maintained as follows:

1. Routine Operations and Maintenance
    - Physical pipeline marking and identification
    - Routine Pipeline Inspections & Patrolling
    - Establishing MAOP for pipelines
    - Maintaining MAOP limits during line startup/shutdown operations
    - Pipeline pigging procedure
    - Pipeline pigging frequency and schedule
    - Pigging types and applications
    - Prevention of accidental ignition
    - Purging & blowdown of pipeline
    - Removing a plug or freeze
    - Pipeline replacement material
    - Pressure test guidelines and dewatering
    - Soil cover
2. Cathodic Protection, Corrosion Control, and Liquids Management
    - External cathodic protection
    - Protective coating
    - Electrical isolation
    - Cathodic protection monitoring
    - Rectifiers and ground bed
    - Test stations
    - Interference currents

- Internal corrosion and chemical treatment
- Tank Operations and Maintenance

3. Procedures to Reduce Releases
   - Reducing venting and flaring
   - Reporting scheduled and unscheduled maintenance
   - Emergency response plan

To assist in complying with these regulations, this manual is provided for use by employees of the Company.

The manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year.

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SECTION 100 – ROUTINE OPERATIONS AND MAINTENANCE

PIPELINE MARKING AND IDENTIFICATION

GENERAL

The following procedure provides the requirements for the design, placement, and maintenance of pipeline markers.

RESPONSIBILITY

The Construction Department will have the responsibility for the design and placement of pipeline markers on buried and above ground pipelines. The Discipline Foreman will have the responsibility for maintaining the markers after initial construction.

PROCEDURES

1. A line marker must be placed and maintained as close as practical over each buried pipeline:
    - At each crossing of a public road and railroad; and
    - Wherever necessary to identify the location of the pipeline to reduce the possibility of damage or interference.
2. Line markers are not required for buried pipelines;
    - Located at crossings of or under waterways and other bodies of water; or
    - In Class III or Class IV locations where placement of a marker is impractical.

    Line markers must be placed and maintained along each section of a pipeline that is located above ground in an area accessible to the public.
3. Line markers must be placed and maintained along each section of a main and pipeline that is located above ground in an area accessible to the public.
4. Marker Signs – Signs shall be constructed and painted in accordance with current Company policy regarding materials, colors, and design.
    - Each sign must have the following message;
    - Warning Gas Pipeline (Letters at least one-inch-high with ¼ inch stroke)
    - Operator Name
    - In case of emergency call collect – (or current telephone number)

References: DOT 49 CFR 192.707

ROUTINE PIPELINE INSPECTIONS & PATROLLING

GENERAL

The following procedure provides instructions in performing a patrol program to identify indications of activity that may affect safety and operation of the pipeline. The procedure includes the frequency of inspections.

RESPONSIBILITY

The Pipeline Foreman is responsible for confirming that:

1. Patrols are performed by foot, motor or aerial patrol to identify leaks, construction activity, potential class changes, right of way encroachment, and any other unusual operating and maintenance conditions that may affect the safety and operations of the pipeline.
2. Patrols are performed at the frequency required by 192.705 b, or more often if relevant factors such as size of line, operating pressures, terrain, weather or class location suggests.
3. Any factors indicated by the patrol that may affect the safety and operation of the pipeline are reported to the Midstream Operations Manager.
4. Patrols ensure that the road and railroad crossings are in good condition. Specific items to check are:
    - Missing or damaged pipeline markers,
    - Condition of the road crossing vent if applicable,
    - Erosion or any other condition threatening the pipeline

The Pipeline Foreman or Operations Manager, in conjunction with Operations Support, is responsible for determining if any reported conditions require repair, replacement, and reduction of MAOP or any other operational change in response to the condition.

Class Location	Highway and Railroad Crossings	At all other places
1 & 2	7 1/2 months, but at least twice each calendar year.	15 months, but at least once each calendar year
3	4 1/2 months, but at least four times each calendar year	7 1/2 months, but at least twice each calendar year
4	4 1/2 months, but at least four times each calendar year.	4 1/2 months, but at least four times each calendar year.

References: DOT 49 CFR 192.705, 192.613

ESTABLISHING MAOP FOR PIPELINES

GENERAL

The following procedure provides instructions for establishing Maximum Allowable Operating Pressure for Company pipelines.

RESPONSIBILITY

Operations Support (Engineering) will be responsible for ensuring that procedures are followed to establish a safe MAOP for each pipeline.

PROCEDURES

No pipeline shall be operated in excess of the established MAOP as determined by the lowest of the following:

A. Design pressure of the weakest element in accordance with 192 subparts C and D.

B. Hydrostatic test pressure divided by one of the factors listed in 192.619 (a) 2 (ii).

C. The highest operating pressure experienced during the five years prior to July 1, 1970 unless the pipeline has been hydrostatically tested after 7/01/65 or has been uprated in accordance with 192 Subpart K.

D. The mill test pressure times 85%.

E. The maximum safe pressure based on corrosion history.

F. Initial determination shall be carried out as a part of construction including determining the initial class location.

UPRATE OF THE ESTABLISHED MAOP

Uprate requirements must be completed in accordance with 192 subpart K before a steel pipeline is subjected to a pressure that:

1. will produce a hoop stress of 30 percent or more of SMYS and that is above the established MAOP.

Uprate requirements must be completed in accordance with 192 subpart K before a plastic pipeline is subjected to a pressure that:

1. will produce a hoop stress less than 30 percent of SMYS and that is above the established MAOP; or
2. is above the previously established MAOP.

References: DOT 49 CFR 192.619, 192.551, 192.553, 192.555, 192.557

MAINTAINING MAOP LIMITS DURING LINE STARTUP/SHUTDOWN OPERATIONS

GENERAL

The following procedure provides instruction for maintaining the MAOP limits on the pipeline system during line start-up/shutdown operations.

RESPONSIBILITY

The Discipline Foreman shall be responsible for:

- Monitoring line pressures during start-up/shutdown operations to ensure established MAOP is not exceeded.
- Ensuring pressure limiting devices are operational and tested annually to provide overpressure protection during the operation.

References: DOT 49 CFR 192.605 (5)

PIGGING OPERATIONS

GENERAL

The following procedure establishes guidelines for pipeline pigging operations in a safe, efficient manner.

RESPONSIBILITY

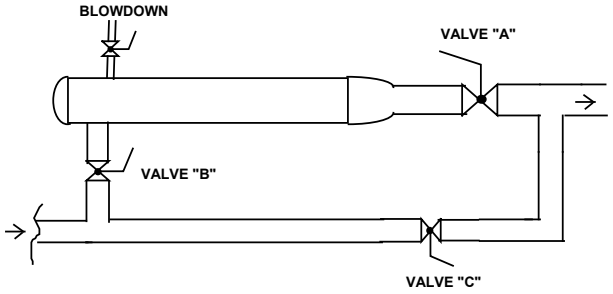
The Pipeline Foreman will ensure that:

- Communication has been established with appropriate parties.
- All valves used during pigging operation are functional.
- Ensure proper size and type of pig is used.
- Corrosion probes have been retracted from the pipeline.
- Gas flow is sufficient to run the pig.
- Operations must be knowledgeable about operating procedures and safety guidelines.
- All follow-up reporting is completed in a timely manner and routed to other persons as necessary.

PROCEDURES

LAUNCH

Refer to drawing below for launching

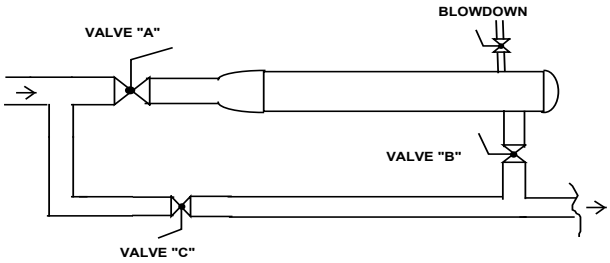


1. Check with Gas Control (if applicable) to inform them of the intent to launch a pig.
2. With valves "A" and "B" closed, crack blowdown valve and blow down receiver. Valve “C” must be open.
3. Installing pig to launcher
    a. Install pig all of the way forward (with nonsparking device) into the receiver to ensure tight seal.
    b. Leave blowdown cracked and then crack valve "B", letting the launcher purge of air.
    c. After launcher has purged adequately, close blowdown valve and allow pressure in launcher to equalize with line pressure.
    d. Open valves "B" and then "A".
    e. Close valve “C” just enough to launch pig.

4. As soon as possible after pig is launched, valves should be returned to original position.
5. Notify Gas Control (if applicable) of time of departure and pressure.

RECEIVE

Refer to drawing below for receiving:



1. Open valves A&B and while awaiting arrival of pig, close valve "C". 2.
2. Removing pig from receiver
    a. When pig is in receiver; valve "C" should be open.
    b. Valves "A and B" are closed.
    c. Crack blowdown valve(s)until all pressure is bled from receiver.
    d. Ensure that there is some type of catch container under the receiver. No contents of the receiver must touch the ground.
    e. Remove closure cap and remove pig, catching a sample in a clean container. If necessary.
3. Notify Gas Control (if applicable) of time of arrival
4. Return all valves to original position
5. Return all corrosion probes into the line.

PIPELINE PIGGING FREQUENCY/SCHEDULE

GENERAL

The following procedure establishes guidelines for determining pipeline pigging frequencies to protect the Company, the public, and the environment from pipeline failures.

RESPONSIBILITY

The Pipeline Foreman and Operations Engineer will ensure that:

- Pipelines are operating at maximum efficiencies.
- Pipelines are adequately protected from internal corrosion caused by pipeline liquids.

PROCEDURES

The frequency of pipeline pigging will be determined by following these steps.

1. Determine the baseline hydraulic efficiency and gas velocity by utilizing a pipeline hydraulic program.
2. Monitor pipeline efficiencies by updating flowrates, pressures, etc.
3. Monitor corrosion coupons and adjust chemical injection/jet pigging accordingly.
4. Monitor slug size at pig receipt point and adjust pigging frequency accordingly.

PIPELINE PIGGING TYPES & APPLICATIONS

GENERAL

The Company currently uses seven types of pipeline pigs for seven different functions.

- Batching
- Chemical (V-Jet)
- Cleaning
- Drying
- Gauging
- Purging
- Smart Pig – In-line Inspection (ILI)

Each of these pigs are designed for their specific purposes.

RESPONSIBILITY

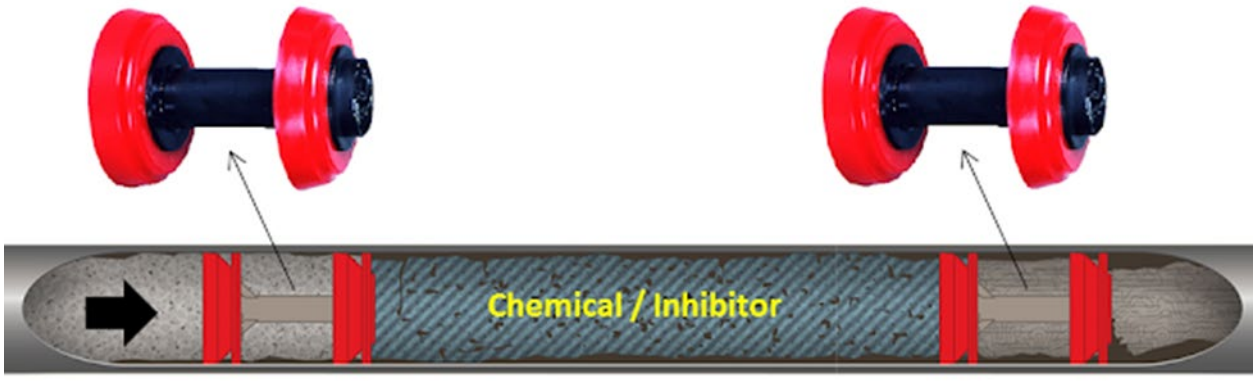
The Pipeline Foreman and Operations Engineer are responsible for selecting the appropriate pipeline pig.

PROCEDURES

Choosing the correct pipeline pig is essential to ensure that results from the proactive or reactive pig run are achieved.

BATCHING PIG

A batching pig is a utility pig with a moving seal in a pipeline to separate liquid from gas media, or to separate two different products transported in a pipeline.



Chemical Batching Pig

V-JET CORROSION INHIBITOR PIG

A V-Jet pig distributes corrosion inhibitor to the entire pipe wall, even the top. It uses bypass flow as an inductive driving force, sucking up residual corrosion inhibitor that has dropped from the bottom of the pipe wall and spraying it onto the inside top portion.

CLEANING PIG

Brush or Scraper pigs are used to remove welding slag, paraffin, or other solids from the inside of a pipeline.

Multipurpose cup pigs are used to clean hard and soft deposits, displace liquids, and can also be used to batch treat pipelines.

Poly coated foam pigs are able to negotiate short radius elbows, miter bends, and major diameter reductions. They are used for light cleaning, liquid displacement, line filling and dewatering associated with hydrostatic testing, drying, and product batching.

DRYING PIG

A drying pig is typically a polyurethane foam pig with a honeycomb surface texture that effectively wipes the pipeline wall.

GAUGING PIG

A gauging pig is designed to indicate obstructions in a pipeline. They include a slotted aluminum gauge plate that deforms if it encounters an obstruction in the pipeline. The aluminum will not damage the internal surface of the pipeline.

PURGING PIG

A purging pig is usually made up of numerous cups designed to seal tightly against the wall of the pipeline and are used to remove oxygen or other undesirable compounds.

SMART PIG (ILI)

Sophisticated and sensitive in-line inspection (ILI) tools travel through the pipe and measure and record irregularities that may represent corrosion, cracks, laminations, deformations (dents, gouges, etc.), or other defects. Because they run inside the pipe in a manner similar to the scrubbing and scraping devices known as pigs, these in-line inspection tools are often referred to as smart pigs."

Smart pigs are inserted into the pipeline at a location, such as a valve or pump station, that has a special configuration of pipes and valves where the tool can be loaded into a receiver, the receiver can be closed and sealed, and the flow of the pipeline product can be directed to launch the tool into the main line of the pipeline. A similar setup is located downstream, where the tool is directed out of the main line into a receiver, the tool is removed, and the recorded data retrieved for analysis and reporting.

Magnetic Flux Tools

A Magnetic Flux Leakage (MFL) tool is an electronic tool that identifies and measures metal loss (corrosion, gouges, etc.) through the use of a temporarily applied magnetic field. As it passes through the pipe this tool induces a magnetic flux into the pipe wall between the north and south magnetic poles of onboard magnets. A homogeneous steel wall – one without defects – creates a homogeneous distribution of magnetic flux. Anomalies (i.e., metal loss (or gain) associated with the steel wall) result in a change in distribution of the magnetic flux, which, in a magnetically saturated pipe wall, leaks out of the pipe wall. Sensors onboard the tool detect and measure the amount and distribution of the flux leakage. The flux leakage signals are processed, and resulting data is stored onboard the MFL tool for later analysis and reporting.

A Transverse MFL/Transverse Flux Inspection tool (TFI) identifies and measures metal loss through the use of a temporarily-applied magnetic field that is oriented circumferentially, wrapping completely around the circumference of the pipe. It uses the same principal as other MFL tools except that the orientation of the magnetic field is different (turned 90 degrees). The TFI tool is used to determine the location and extent of longitudinally-oriented corrosion. This makes TFI useful for detecting seam-related corrosion.

Cracks and other defects can be detected also, though not with the same level of reliability. A TFI tool may be able to detect axial pipe wall defects – such as cracks, lack of fusion in the longitudinal weld seam, and stress corrosion cracking – that are not detectable with conventional MFL and ultrasonic tools.

Ultrasonic Tools

Compression Wave Ultrasonic Testing (UT) tools measure pipe wall thickness and metal loss. The first commercial application of UT technology in ILI tools used compression waves. These tools are equipped with transducers that emit ultrasonic signals perpendicular to the surface of the pipe. An echo is received from both the internal and external surfaces of the pipe and, by timing these return signals and comparing them to the speed of ultrasound in pipe steel, the wall thickness can be determined. Of particular importance to successful deployment of a UT tool is pipe cleanliness, specifically the removal of paraffin build-up within the pipe. This is especially important for crude oil lines. The use of a cleaning pig is recommended prior to use of UT tools.

Shear Wave Ultrasonic Testing (also known as Circumferential Ultrasonic Testing, or C-UT) is the nondestructive examination technique that most reliably detects longitudinal cracks, longitudinal weld defects, and crack-like defects (such as stress corrosion cracking). Because most crack-like defects are perpendicular to the main stress component (i.e., the hoop stress), UT pulses are injected in a circumferential direction to obtain maximum acoustic response. Shear Wave UT is categorized as a liquid coupled tool. It uses shear waves generated in the pipe wall by the angular transmission of UT pulses through a liquid coupling medium (oil, water, etc.). The angle of incidence is adjusted such that a propagation angle of 45 degrees is obtained in pipeline steel. This technique is appropriate for longitudinal crack inspection

Geometry Tools

Geometry tools use mechanical arms or electro-mechanical means to measure the bore of pipe. In doing so, it identifies dents, deformations, and other ovality changes. It can also sense changes in girth welds and wall thickness. In some cases, these tools can also detect bends in pipelines. The remediation criteria in 49CFR195.452(h) depend on both the depth and orientation of dents, so geometry tools that are used to detect deformation anomalies such as dents, should be the type that provide both the orientation, location and depth measurement of each dent. This type of tool can be used in both hazardous liquid and natural gas pipelines.

References: TDW, USDOT Fact Sheet: In-Line Inspections

PREVENTION OF ACCIDENTAL IGNITION

GENERAL

The following procedure provides instruction for prevention of an accidental ignition of natural gas.

RESPONSIBILITY

Discipline Foremen will be responsible for the review of all operations that pose a risk of an accidental ignition of natural gas and ensure that the Safe Work and Lock-out/Tag-out procedures of the Company EHS Procedures Manual are executed and documented.

PROCEDURES

Discipline Foremen will be responsible for ensuring that procedures designed to prevent an accidental ignition of natural gas are performed.

Operations personnel will take steps to minimize the danger of accidental ignition of gas in any structure or area where the presence of gas constitutes a hazard of fire, or explosion, including the following:

- When a hazardous amount of gas is being vented into open air, each potential source of ignition must be removed from the area and a fire extinguisher must be provided.
- Gas or electric welding or cutting may not be performed on pipe or on pipe components that contain a combustible mixture of gas and air in the area of work.
- Post warning signs, where appropriate.

RECORDS

Cimarex EHS Procedures Manual – Safe Work Permitting and Lockout/Tagout documentation.

References: DOT 49 CFR 192.751

PURGING & BLOWDOWN OF PIPELINES

GENERAL

This procedure provides general guidelines for blowing down a section of pipeline. It is not intended to cover all situations that may be encountered in the course of the work. For those unique situations, consult your discipline management personnel and/or Environmental, Health and Safety Department (EHS) for further guidance.

RESPONSIBILITY

The Discipline Foreman is responsible for insuring that the following blown down procedures are implemented.

PROCEDURES

PRIOR TO BLOWDOWN

All efforts should be made to reduce the gas vented or flared by utilizing existing infrastructure. If the option doesn't exist to utilize infrastructure, a flare trailer with an appropriate meter shall be used to prevent venting gas to the atmosphere. (See section 300 – Reducing Venting and Flaring)

Before a planned release of natural gas under high pressure, field personnel will attempt to evaluate the surrounding area and notify residents and gas control (if applicable) within a reasonable distance of the facility of the planned release. The notification is intended to prevent undue alarm to the public living in close proximity.

Give similar notice to affected customer companies and appropriate civil authorities and groups such as:

- Police and sheriff's departments
- Fire department
- Nearby airports
- State air quality control board (if required)
- In the State of Texas, the TNRCC must be notified of all blowdown of gas of 5000 lbs., more.

GENERAL GUIDELINES

1. Limit personnel in the vicinity of the blown down to those essential to the blowdown.
2. Move all vehicles and equipment to a safe distance upwind of the blowdown stack (minimum 250 feet).
3. Remove all sources of ignition from the vicinity of the blowdown stack before opening the blowdown valve.
4. Use a "silencer" in those areas where local noise ordinances are restrictive or where the noise could cause a hazard or excessive public nuisance.
5. Station a flagman to stop vehicles on roads close enough to constitute an ignition hazard or where the drivers may be startled by blowdown. If there is no danger of ignition from passing vehicles, they will be allowed to pass after the initial noise has subsided.

6. Always consider the hazard of having "heavy ends" (contaminants heavier than air) in the gas. Check gas concentrations with a gas detector in low-lying areas and bell holes before using any equipment that could cause ignition.
7. Ground the blowdown if needed.

BLOWDOWN UNDER/NEAR ELECTRICAL LINES

1. Do not vent gas under electric pipelines except in case of extreme emergency (danger to life or property). This includes blowing down and purging of meter runs. This might require piping the blow off a safe distance downwind from the power lines or blowing down additional sections of pipeline to accomplish work.
2. Notify the operator of the power lines before venting gas. They may be able to shift their load and "kill" the power lines over the vent.
3. When the release point is relocated, properly secure the pipe to prevent movement by the blowdown thrust. Reduce the pressure in the segment to be blown down as much as possible before opening the blowdown valve. (Special easements may have pressure limitations.)

BLOWDOWN OF PIPELINES WITH LIQUIDS PRESENT

1. Blowdowns of pipelines containing significant amounts of liquids should be routed through a tank to prevent spills or releases to the ground. Routing through tank truck is not permitted except in special circumstances (see #4 below).
2. All piping and connections used to connect the tank should be steel and rated for a higher pressure than the pipeline it is tied to. Rubber hoses are not permitted.
3. Piping should be staked down and tied to prevent movement during blowdown.
4. When blowing down a pipeline for hydrate removal where ice is known to be present, steel piping shall be used. In other blowdown situations, special circumstances may warrant the use of high-pressure steel braded hose (recommend minimum pressure rating of 1500 psi) in place of steel piping. In these cases, authorization must be obtained by the Area Superintendent or Operations Superintendent prior to each blowdown where this type equipment may be used.
5. Steel braded hose must be inspected by Company personnel prior to use and found to be in good condition and clearly marked with a minimum pressure rating of 1500 psi. If a tank truck is used, IT MUST BE LOCATED UPWIND AND IGNITION TURNED OFF DURING ENTIRE BLOWDOWN OPERATION. ALL PERSONNEL MUST BE LOCATED IN A SAFE LOCATION OUTSIDE OF TRUCK DURING BLOWDOWN.

REMOVING A PLUG OR FREEZE

GENERAL

This procedure establishes guidelines for clearing freezes or restrictions from a pipeline. Hydrates are solid compounds similar to ice particles that can form in a high-pressure line, blocking the flow of gas. Their formation depends on the composition, pressure, and temperature of the gas (see Attachment 2). Hydrates can form at temperatures above 32° F. More than one hydrate blockage can form in a pipeline section. This presents a hazardous situation when the pressure differential across the blockage exceeds the holding force of the hydrate, propelling the hydrate down the pipeline with enough force to rupture the pipe.

Dehydrators help prevent the formation of hydrates by removing water essential to their formation. Injecting antifreeze solutions (such as methanol) into the gas flow also helps prevent hydrate formation by combining with the free water.

When flowing down pipelines to remove hydrate blockage, follow proper blowdown procedures outlined in this procedure.

RESPONSIBILITY

Discipline foremen are responsible for insuring these procedures are followed.

PROCEDURES

REMOVING HYDRATE BLOCKAGE FROM PIPELINES

Determine the hydrate(s) blockage position by checking pipeline pressures along the pipeline. Procedures to remove the blockage are listed below in order of preference.

1. With some gas still flowing and an injection point just upstream of the hydrate formation, inject methanol into the gas stream to help dissolve the hydrate formation.
2. With no gas flowing, isolate the section of pipeline containing the hydrate formation by closing valves. Reduce the pressure to vaporize the hydrate. Blowdown the isolated section on each side of the hydrate formation at the same time to avoid any appreciable pressure differential across the hydrate. During this blowdown, personnel must wear appropriate personal protection equipment. Eliminate all possible sources of accidental ignition from areas where gas will be vented.
    1. Keep the isolates section of line blown down long enough for the ground temperature to thaw the hydrate formation. Local personnel will determine the length of time required to be blown down based on existing ground temperature conditions, etc.
    2. After the hydrate formation melts, remove the liquids from the line. Maintain a safe working clearance since large pieces of the hydrate formation may not be fully thawed and could cause a pipeline failure.
    3. Inject methanol to minimize the possibility of remaining liquids producing a second freeze off.
    4. If there may be an explosive mixture in the pipeline, purge the section of pipe in accordance with Purging Procedure 701.
3. Use pressure differential across the formation to move and break up the hydrate.

1. Isolate the section of pipeline containing the hydrate formation, if possible, by closing the valves.
2. Review the section of pipe containing the hydrate formation. Where possible, reduce the pressure on the side of the hydrate formation that provides the longest straight run of pipe for the hydrate formation to break free. Avoid dead end sections of pipe such as a capped tee at a blow off valve.
3. Install gauges on each side of the hydrate formation to monitor the differential pressure across the hydrate.
4. Before opening the blow off valve, check the area around the valve for possible fire hazards (houses, wellhead heaters, power lines, vehicles, etc. located downwind of the blow off valve). Wear ear protection during the blowdown period. Refer to Blowdown Procedure 700.
5. When the hydrate formation breaks free, a pipeline failure may occur at any point where the formation strikes an obstruction or bend in the pipe. After opening the blow off valve, all personnel and equipment should move at least 200 feet from the blow off riser and pipeline.
6. Close the blow off valve when the differential approaches the recommended values shown in Attachment 1. Maintain a clearance of 200 feet whenever possible.
7. If, after a period of time, the hydrate formation does not break free, blow down both sides of the isolated section at the same time to avoid an appreciable pressure differential across the hydrate. During this blowdown, all personnel must maintain a minimum clearance of 200 feet and wear ear protection.

REMOVING HYDRATE BLOCKAGE FROM GATHERING SYSTEMS

1. Isolate hydrate by valving off the section(s) affected. Include the well flow lines so meters become pressure observation points. Un-flange or uncap blow offs near each end of section.
2. Check for existing pressure variations.
3. Blow from selected end and observe effect at other end of isolated section. If no effect, open the/s and reduce pressure until reasonably equal (less than 50 psig differential across hydrate blockage).
4. Stop at a pressure not more than 300 psig below the starting pressure; check and equalize at each available point. Reopen and stop again after an additional 300 psig depletion and again equalize the checkpoints. Repeat once more if necessary before reaching atmospheric pressure.
5. Grease valves to minimize leakage into the isolated section.
6. Shut-in all but one blow off and allow venting approximately 24 hours.
7. Sweep hydrates and fluid out of line with up to 50 psig gas pressures. Repeat if necessary.
8. Pump in methanol if required and re-pressure while still gas filled.

DOCUMENTATION

Document blowdown in Cimarex's Radar Reporting Program

LEAK, IMPERFECTION, DAMAGE AND REPAIRS OF PIPELINES

GENERAL

This procedure provides guidance and establishes minimum performance standards to be followed in the repair of damage of a Company pipeline.

RESPONSIBILITY

The Pipeline Foreman and/or Construction Foreman assigned to pipeline leak repairs are responsible to ensure that the provisions of this procedure are followed. In the case of gas venting to the atmosphere as the result of a line leak, it is the responsibility of all personnel associated with the line repair or replacement to exercise good judgment and extreme caution in performing the repair activities keeping the safety of themselves and the public as their top priority.

The Company Engineer is responsible for review and approving the repair procedure and material selection.

The Environmental, Health, & Safety (EHS) department will make notification to state and federal pipeline safety agencies on incidents that meet the reporting requirements as established by each respective agency. Notification to the EHS department must be made as soon as practical after discovery of an incident.

PROCEDURES

PERMANENT REPAIR OF IMPERFECTIONS AND DAMAGES

Reports of pipeline leaks whether suspected or confirmed will be investigated immediately.

Excavation of a confirmed pipeline leak location will be evaluated based upon the estimated size of the leak and the volume of gas lingering in the immediate area of the leak. If the gas volume is considered excessive and constitutes an explosive hazard, the pipeline will be taken out of service and the line pressure reduced to atmospheric pressure prior to the commencement of excavation. If the size of the leak is small, the volume of gas released minimal, and the weather conditions are favorable, excavation may proceed with caution. Should the volume of gas released increase or weather conditions become unfavorable during the excavation operations, excavation will be ceased and the pipeline taken out of service prior to continuing excavation.

If at all possible, repair of pipeline leaks will be accomplished by cutting out the damaged pipeline section as a cylinder and replacing the section of damaged pipe with a section of pretested pipe of comparable material grade and pressure rating, all repair procedure and material selection shall be approved by the appropriate Company Engineer. The damaged section will be examined for determination of the cause and extent of damage and a report prepared on conclusions.

If repair of the pipeline by removal of a cylinder is not feasible or if the cause of the leak is known to be localized and further investigation is not warranted, the leak can be repaired by installation of a full-encirclement repair sleeve manufactured of material compatible to the material and pressure rating of the pipeline to which it is welded.

The method of repairing non-leaking defects and damages is dependent upon the type of pipe and the extent of damage. Minor scrapes, grooves, and gouges to the pipe wall may be removed by grinding, filing or sanding sharp edges until they are smooth and even with the original pipe wall if the remaining wall thickness after grinding meets one of the two following wall thickness criteria:

- The remaining wall thickness must exceed the nominal wall thickness required for the design pressure of the pipeline as determined by the design formula; or
- Removal of the defect by grinding, filing or sanding does not reduce the pipe wall thickness by more than 10% of the original wall thickness.

Arc burns will be cut out as a cylinder and replaced with a new section of pipe of comparable material grade and pressure rating, or covered with a full-encirclement pressure retaining repair sleeve of comparable material grade. Field repair of arc burns is not authorized.

The following types of damage or defects will receive immediate attention and shall be repaired or the pressure reduced or removed entirely from the pipeline as soon as pipeline operating conditions permit:

- Cracks – Cracks shall be removed by cutting out the pipe section containing the crack in a cylinder and replacing the pipe section with new pretested pipe of comparable material grade and pressure rating. No attempt shall be made to repair a crack.
- Dent that affects the longitudinal or girth weld - dents that distort the surface of a longitudinal weld or girth weld must be replaced or repaired. These defects can be repaired by cutting out the defect in the pipeline as a cylinder and replacing the removed section with a new pretested pipe section, or by installing a full-encirclement repair sleeve of comparable material grade and pressure rating.
- General Corrosion – Each segment of pipeline with general corrosion and with a remaining wall thickness less than that required for the MAOP of the pipeline must be replaced or the operating pressure reduced commensurate with the strength of the pipe based on the actual remaining wall thickness. However, corroded pipe may be repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe. Corrosion pitting so closely grouped as to affect the overall strength of the pipe is considered general corrosion.
- Localized Corrosion – Each segment of pipeline pipe with localized corrosion pitting to a degree where leakage might result must be repaired or replaced, or the operating pressure must be reduced commensurate with the strength of the pipe based on the actual remaining wall thickness in the pits.

  The strength of the pipe based on actual remaining wall thickness may be determined by the procedure in ASME/ANSI B 31G or the procedure in AGA Pipeline Research Committee Project PR 3-805 (with RSTRENG disk). Both procedures apply to corroded regions that do not penetrate the pipe wall, subject to the limitations prescribed in the procedures.

PERMANENT REPAIR OF WELDS

Pipeline welds found to be defective after the pipeline is placed in service will be repaired in accordance with the welding specifications. The pipeline will be taken out of service and reduced to atmospheric pressure prior to the commencement of repair activities. Completed repairs will be non-destructively tested to ensure acceptability. If after one attempt to repair the weld it still is deemed unacceptable, the pipeline section containing the defective weld will be cutout as a cylinder and replaced with a pretested pipe section of comparable material grade and pressure rating.

Welds containing defects other than cracks may be repaired by installation of a full-encirclement repair sleeve over the defective weld if removal of a pipe section containing the defective weld is not reasonably feasible. Removal of the weld cap by grinding to a point even with the base metal surface is required for installation of the repair sleeve. Whether the pipe cap can be removed by grinding with the pipeline under pressure or not will be determined by the nature of the weld defect. If it is determined that removal of the pipe cap will pose the potential of weld failure in the area of the defect, pressure in the pipeline will be lowered to a point that the hazard no longer exists before cap removal by grinding commences.

Defective welds containing cracks will be removed by cutting the pipeline section out as a cylinder and replacing the defective weld section with new pretested pipe of comparable grade and pressure rating. However, if removal of the cracked weld by cutting out the pipe section as a cylinder is not reasonably feasible, the method of repair to be employed will be determined by Operations department who will provide specific procedures for each individual repair situation. Repair of a defective weld containing a crack will never be attempted with the pipeline under pressure.

TESTING OF REPLACEMENT PIPE, COMPONENTS, & WELDS.

Each length of pipe and each component utilized in the replacement or repair of the pipeline system will be visually inspected at the site of installation to ensure that it has not sustained any visually determinable damage that could impair its serviceability prior to testing and installation.

The Pipeline Foreman and/or Construction Foreman assigned responsibility for the pipeline repair shall ensure that replacement pipe and components utilized in the repair and replacement operations are of comparable material grade and pressure rating. The Pipeline Foreman or Construction Foreman will conduct a visual inspection of the replacement pipe and components to ensure there is not visual damage that may impair the materials serviceability.

Pipe and components utilized in the replacement or repair of any segment of the company's transmission system will be tested prior to installation to the pressure required for a new line installed in the same location. At no time will the pressure test of replacement pipe and components be less than that required to maintain the established maximum allowable operating pressure of the existing pipeline to be repaired. Pressure testing will be conducted in accordance with company construction standards.

Welding for the replacement or repair of pipe and components on the company's transmission system will be conducted in accordance with Company construction standards. Non-destructive testing of welds required for the replacement or repair of the transmission system will be in accordance with standards set forth in the company Construction Standards.

PRESSURE TEST AND DEWATERING

GENERAL

This procedure provides guidance and establishes the minimum requirements for pressure testing of all steel piping and pipeline facilities on the Company's system.

RESPONSIBILITY

The Company Engineer is responsible establishing and supervising the minimum requirements for pressure testing of all steel piping and pipeline facilities on the Company's system per Company standard 31020 General Requirements for Pressure Testing.

The Construction Foreman is responsible performing the minimum requirements for pressure testing of all steel piping and pipeline facilities on the Company's system per Company standard 41020 Hydrostatic Testing of Gas Pipelines.

The Pipeline Foreman is responsible verifying that pressure test and dewatering were performed to Company standards.

DOCUMENTS

Exhibit 1 − 31020 General Requirements for Pressure Testing

Exhibit 2 − 41020 Hydrostatic Testing of Gas Pipelines

SOIL COVER

GENERAL

This procedure provides guidance and establishes the minimum requirements for soil covering necessary on piping of the Company's system.

RESPONSIBILITY

The Pipeline Foreman and/or Construction Foreman is responsible performing the minimum requirements for requirements for soil covering necessary on piping of the Company's system per Company standard 41070 - Lowering-in and Backfilling

DOCUMENTS

Exhibit 3 – 41070 - Lowering-in and Backfilling_Rev2

SECTION 200 – PIPELINE INTEGRITY MANAGEMENT

EXTERNAL CORROSION

GENERAL

The following procedure establishes guidelines for the design, installation, operation and maintenance of cathodic protection systems.

RESPONSIBILITY

The Corrosion Supervisor shall be responsible for:

- Approving procedures for the design, construction, operation and maintenance of all corrosion control facilities on existing pipelines and on new pipelines;
- The design, installation (either by contract or by Company personnel), inspection during construction, initial performance evaluation.
- The Corrosion Supervisor / Corrosion Technician shall be responsible for:
- Initiating and directing the various tests, inspections and measurements outlined in this section and shall ensure schedules are prepared and permanent records maintained of all tests, inspections and operating data.
- Testing of all corrosion control facilities required on existing pipelines and on new pipelines.

PROCEDURES

NEW PIPELINES

All new buried or submerged pipelines and all new pipe replacements installed shall have an approved external coating and a cathodic protection system designed to protect the pipeline in its entirety.

The cathodic protection system shall be installed and placed in operation as soon as possible after completion of construction, but shall not exceed one (1) year after completion of construction.

EXISTING PIPELINES

All existing critical pipelines shall have a cathodic protection system designed to protect the pipeline in its entirety. Each cathodic protection system must provide a level of protection that complies with the following criterion:

- A negative (cathodic) voltage of at least -0.85 volt with reference
-
- to a saturated copper-copper sulfate half-cell contacting the electrolyte as near to the structure as possible. Determination of this voltage must be made with the protective current applied.
  Voltage (IR) drops other than those across the structure - electrolyte boundary must be considered for valid interpretation of the voltage measurement.
- A minimum negative (cathodic) polarization voltage shift of 100 millivolts. The polarization voltage shift must be determined by interrupting the protective current and measuring the polarization decay. When the current is initially interrupted an immediate voltage shift occurs.

The voltage reading after the immediate shift must be used as the base reading from which to measure polarization decay.

REFERENCE HALF CELLS

A negative cathodic voltage must be measured between the structure surface and a saturated copper-copper sulfate half-cell contacting the electrolyte.

DESIGN OF CATHODIC PROTECTION SYSTEM

The type of cathodic protection used shall deliver sufficient current to the structure so that the selected criterion for protection is attained. It shall also be designed to:

- Minimize interference current on or from foreign structures;
- Provide a design life commensurate with the life of the protected structure; and
- Provide adequate allowance for changes in current requirements with time.

Design considerations shall include the type of structure to be protected, structure accessibility, power availability, electrical resistivity of the electrolyte, electrical continuity and electrical isolation of the structure.

The types of cathodic protection can be either impressed current systems or galvanic anodes.

Galvanic anodes such as magnesium, zinc or aluminum should be used in cases where any one of the following exist:

- Current requirements are low,
- The structure to be protected is well coated,
- Localized protection is required; or
- The electrolyte has relatively low resistivity.

Impressed current systems utilizing rectifiers and ground beds shall be used where high current is required in any soil resistivity to protect larger and more expansive structures. Rectifiers and ground beds shall be installed per approved Company procedures.

All installation as-built information shall be submitted to the Corrosion Supervisor.

References: DOT 49 CFR 192.453, 455, & 457, & DOT 49 CFR 195.242 & 414

PROTECTIVE COATING

GENERAL

The following procedure establishes guidelines for pipeline protective coating preparation and repair on Company owned pipeline systems.

RESPONSIBILITY

All operating personnel shall be responsible for:

- Observations and inspections of pipe and other structures each time a pipeline is uncovered or exposed to the atmosphere; and
- Reporting the information regarding pipe coating and conditions and maintenance.

The Pipeline Foreman/Corrosion Technician shall be responsible for:

- Monitoring the condition of exposed pipe;
- Cleaning and coating of pipe that is replaced or repaired as maintenance for any pipeline or section of pipe; and

The Operations Engineer shall be responsible for the selection of coating material, surface preparation specifications and coating application specifications.

PROCEDURES

All new buried or submerged pipelines and all pipe replacements shall be prepared and coated with an external protective coating as specified in the Company Corrosion Control Manual.

Each pipeline or portion of pipeline that is exposed to the atmosphere shall be first cleaned and then painted. The area of repair, including any added facilities, on pipelines which are uncovered shall be cleaned until it is free of all dirt, oil, mill scale, rust, existing coating or other foreign matter prior to applying the specified coating material. Any damage found must be repaired and reported.

The coating material shall have properties to resist damage from chemicals in the environment for which it is proposed.

- It shall be properly applied so as to adhere to the metal surface and effectively resist underfill migration of water, while being ductile enough to resist cracking.
- It shall be strong enough to resist damage due to handling and soil stress while remaining effective after the application of cathodic protection.
- All coatings shall have low moisture absorption and high electrical resistance and shall be inspected just prior to lowering of the pipe into the ditch.

Pipe coatings shall be protected from adverse ditch conditions by supporting the pipe on blocks to prevent damage.

Precaution must also be taken to prevent damage to the coating if coated pipe is to be installed by boring, driving or other similar methods.

When any portion of a buried pipeline has been exposed, that portion of the pipeline shall be inspected for external corrosion. If external corrosion requiring remedial action is found, the area shall be circumferentially and longitudinally inspected beyond the exposed portion (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the exposed portion.

References: DOT 49 CFR 192.455, 459 and 461

ELECTRICAL ISOLATION

GENERAL

The following procedure establishes guidelines for isolating cathodically protected carrier pipelines from casings, foreign line connections and other structures.

A "short" occurs when a casing, foreign line or other structure is in direct contact with the carrier pipe so that electrical isolation is lost.

RESPONSIBILITY

The Corrosion Supervisor/Corrosion Technician shall be responsible for ensuring:

- Electrical tests are performed when scheduled;
- Electrical isolation is maintained or remedial actions are performed; and
- Other department personnel are aware of the importance of electrical isolation.
- Determining the status of shorted casings, foreign lines and other structures and recommending remedial measures; and
- Maintaining a record of all reported shorted casings and remedial work performed on electrically shorted casings.

PROCEDURES

ISOLATION REQUIREMENTS

Buried pipelines shall be electrically isolated from casings and other metallic construction except where the pipeline is interconnected electrically with a structure and both are cathodically protected as a single unit.

Where necessary, an insulating device shall be installed to facilitate the electrical isolation.

Precautions shall be taken to ensure insulating devices are not installed in an area that contains a combustible or explosive atmosphere.

Pipelines and insulating devices shall be protected from fault currents and lightning with grounding anodes when tests and inspections indicate the high probability of occurrence.

ISOLATION TESTS

Electrical tests must be made to assure the existence of electrical isolation between the pipeline and other metallic structures in the underground system.

Measurements shall be made at insulated points to determine the effectiveness of the insulation.

When the voltage potential of the casing is equivalent to or less than 100 millivolts in comparison to the carrier pipe's voltage potential, additional tests shall be conducted to determine that a casing short exists. Acceptable test methods include the following:

- Interrupted cycling of the cathodic protection system or DC test current to determine that voltage shifts on the casing occur during ON current and OFF current conditions.
- Measuring the resistance between the carrier pipe and casing.

- Connecting a low voltage DC power source between the carrier pipe (negative) and casing (positive) to observe: positive polarity shifts on the casing; increased negative voltage potentials on the carrier pipe; and current flow from the casing to the carrier pipe.

REMEDIAL ACTION

When a shorted casing is discovered, the Corrosion Supervisor shall recommend and initiate methods to clear casing electrical shorts using the following options:

1. Clear the casing of the short by digging out the ends and correcting the condition causing the short;
2. Remove the casing if it is no longer necessary and removal is economically justifiable

Remedial action shall include all conventional and practical construction methods currently known to clear electrical shorts (i.e. jacking pipe, replacing worn test lead wires, inserting spacers, etc.).

ALTERNATE ACTION:

If the short cannot be electrically cleared by other remedial actions, the casing may be filled with a high dielectric strength casing filler.

Alternate measures must include action to minimize corrosion of the pipelines inside the casing. Any method, which provides a corrosion inhibiting environment in the annular space between the casing and carrier pipe, is acceptable.

References: DOT 49 CFR 192.467

MONITORING

GENERAL

The following procedure establishes guidelines for monitoring the cathodic protection systems on Company owned pipeline systems.

RESPONSIBILITY

The Corrosion Supervisor/Corrosion Technician shall be responsible for:

- Maintaining a record of corrosion control data;
- Recommending additional testing and training;
- Approving changes in corrosion control facilities; and
- Consulting with the Operations Support on remedial actions.
- Analyzing the collected data;
- Initiating remedial action.

PROCEDURES

INSPECTION OF THE CATHODIC PROTECTION SYSTEM

1. Electrical measurements and inspections to determine the adequacy of all existing corrosion control facilities shall be made at a minimum of once each calendar year, but with intervals not exceeding fifteen months. The results shall be reported on the Company's computer based corrosion control data management program. These measurements shall include:
   - Pipe-to-soil potentials at designated test stations;
   - Casing-to-soil potentials at cased road crossings;
   - Pipe-to-soil potentials at foreign line crossings (include foreign pipe-to-soil readings if test leads are available);
   - Pipe-to-soil potentials at well connects;
   - Pipe-to-soil potentials at exposed pipe designated as test stations;
   - Pipe-to-soil potentials at all above ground pipeline facilities designated as test stations;
2. If pipe to soil readings fail to comply with the requirements outlined in the External Corrosion Control (Cathodic Protection) section of these procedures, the operator should develop a remedial plan of action as soon as possible.

INSPECTION OF RECTIFIERS AND INTERFERENCE BONDS

1. Each rectifier unit or other impressed current power source shall be inspected for proper output six times each calendar year, but with intervals not exceeding 2-1/2 months. The results shall be reported on the Company's computer based corrosion control data management program.
   - If the current output of a unit drops below that required for protection, the reason shall be determined and prompt remedial action taken.
   - Any substantial current output changes that would be detrimental to the structure protection shall be reported to the Corrosion Supervisor/Corrosion Technician.

If replacement or partial replacement of an impressed current system is required, the installation shall be made as soon as possible.

2. Each interference bond whose failure would jeopardize structure protection shall be electrically checked for proper performance six times each calendar year, but with intervals not exceeding 2½ months. All results shall be reported to the Corrosion Supervisor/Corrosion Technician.

OTHER INSPECTIONS

1. When a pipeline is uncovered for any reason, the condition of the pipe and coating shall be reported on the line crossing form.
   - Coatings shall be repaired or replaced as outlined in the Corrosion - Protective Coating Procedure.
   - Any pipe found pitted or otherwise damaged shall be reviewed and repaired before the pipe is covered.
2. The Corrosion Supervisor/Corrosion Technician shall maintain a permanent file of all corrosion leak repairs. These records shall be used to establish the need for remedial measures when appropriate.

References: DOT 49 CFR 192.463, 465, 477, 481, and 485

RECTIFIERS AND GROUND BED

GENERAL

The following procedure establishes guidelines for installing, operating and maintaining rectifier units and ground beds.

RESPONSIBILITY

The Corrosion Supervisor/Corrosion Technician shall be responsible for ensuring:

- Inspections and reports are completed when scheduled.

The Corrosion Supervisor and Operations Engineer shall be responsible for:

- Rectifier system designs, as-built drawings, site selection and permits.
- Ensuring rectifier units and ground beds are properly installed.

PROCEDURES

DESIGN OF RECTIFIER SYSTEM

The rectifier cathodic protection system design shall be based on the following considerations:

A. Hazardous conditions related to both the structure to be protected and the cathodic protection system;

B. Specifications of materials and installations practices shall conform to existing codes, NEMA standards and, where desired, the recommended practices of the National Association of Corrosion Engineers; and

C. Whether the system selected and designed will provide for low cost installation, as well as the most economic and efficient maintenance and operation possible.

SITE SELECTION

The site for a cathodic protection installation will be selected after evaluation of the above considerations and of the following attributes:

A. Accessibility;

B. Power availability;

C. Current distribution;

D. Electrolyte resistivity;

E. Possible interference sources; and

F. Safety and Environmental considerations.

CONSTRUCTION

All construction work performed on corrosion control systems will be done in accordance with the latest revisions of construction drawings and specifications, and with applicable codes.

Consideration will be given to recommended practices of the National Association of Corrosion Engineers.

INSTALLATION TESTS

The standard installation tests shall be made on each rectifier system.

1. Rectifier polarity will be checked.
2. To verify proper installation of the system, pipe-to-soil potentials at a nearby test point shall be checked with the rectifier on and off.
3. As-built drawings will be completed and submitted to the Corrosion Supervisor.

RECTIFIER OUTPUTS

- If soil conditions vary greatly, all rectifier voltage and current settings should be adjusted to account for the effects of moisture content on soil resistivity.
- Rectifiers shall not be adjusted in excess of the rated capacity of the unit.
- Rectifier outputs shall not normally be set to exceed grounded design limitations.
- The amount of cathodic protection must be controlled so as not to damage the protective coating or the pipe
- Interrupt the rectifier's output to determine if foreign structure in close proximity to the rectifier is influenced by its operation.

References: DOT 49 CFR 192.463

Recommended Practices of National Association of Corrosion Engineers

TEST STATIONS

GENERAL

The following procedure establishes guidelines for installing and maintaining cathodic protection test stations.

RESPONSIBILITY

The Corrosion Supervisor/Corrosion Technician shall be responsible for ensuring test stations are properly installed.

PROCEDURES

TEST STATIONS

Sufficient test stations or other contact points for electrical measurements shall be provided to determine the adequacy of cathodic protection.

The following factors shall be considered when selecting test station lead locations:

- Land use;
- Accessibility;
- Distance from other test points; and
- Population density.

Intervals between test points shall normally not exceed one mile, except as determined using the factors in A.2 above. Test points include test leads, valves, taps, meters and other above ground piping.

TEST LEADS

Test leads shall be placed at road crossings, railroad crossings and foreign line crossings, as determined using the factors in A.2 above.

The thermit welding process shall be the standard method of attaching test leads to the pipe. The thermit weld should include the following:

- Welding powder charges larger than fifteen (15) grams shall not be used.
- Multiple lead attachments shall be separated by a minimum of four (4) inches.

Each test lead wire shall be attached to the pipeline so as to minimize stress concentration on the pipe.

Each test wire connection to the pipe must be coated with an electrical insulating material compatible with the pipe coating and the insulation on the wire.

Test stations shall be installed according to proper design procedures

References: DOT 49 CFR 192.469 & 471

INTERFERENCE CURRENTS

GENERAL

The following procedure establishes guidelines for reducing and avoiding the effects of interference currents from third party cathodic protection systems and power lines.

RESPONSIBILITY

The Corrosion Supervisor/Corrosion Technician shall be responsible for the following:

- Performing interference testing in cooperation with representatives from other companies.
- Initiating or recommending interference tests from data obtained during normal corrosion control tests.

Each employee shall be responsible for reporting third party installations, which may cause interference, as discovered from line walking and leak surveys, reported encroachments, or other sources of information.

PROCEDURES

ADJACENT STRUCTURES

1. Adverse effects of interference currents from adjacent underground structures shall be minimized by design and installation methods and thereafter as required.

2. All galvanic anode systems and impressed current cathodic protection systems shall be designed and installed to reduce or avoid any interference with existing adjacent underground structures.

EVALUATION OF INTERFERENCE

The common problems of corrosion and electrolysis prevention and control shall be evaluated through tests performed by both Company operations personnel and representatives from other companies.

When a pipeline is adjacent to a power line, the following possible conditions shall be considered in determining the effects of interference currents:

- Whether the pipeline is carrying either unbalanced line currents or fault currents; and
- Whether lightning or fault currents are inducing voltages sufficient to affect the integrity of the pipe coatings and/or insulating joints.

If test results identify an interference problem, the problem shall be resolved to the mutual satisfaction of the parties involved.

MITIGATION

If bonds are installed to solve interference problems, they shall be monitored for proper performance.

For other interference bonds, such as induced alternating current (AC) from power lines, polarization cells and/or grounding coils of zinc or magnesium must be installed.

RECORDS

A record of interference problems and the actions taken to correct the stray current will be maintained by the Corrosion Supervisor/Corrosion Technician. Corrective action shall be taken as soon as possible

but no longer than 30 days after completing the mutual testing between the Company's Corrosion Department and representatives of other companies.

References: DOT 49 CFR 192.465 & 473

INTERNAL CORROSION AND CHEMICAL TREATMENT

GENERAL

The following procedure establishes guidelines for detecting and preventing the occurrence of internal corrosion on pipeline systems.

RESPONSIBILITY

Within each operating area, all operations personnel shall be responsible for reporting any knowledge of corrosive gas or liquid to the Pipeline Foreman or Corrosion Supervisor.

The Pipeline Foreman and Corrosion Supervisor shall be responsible for the following:

- Pipeline Operators and Corrosion technicians follow coupon and monitoring device schedules and are aware of all tests and measurements taken for internal corrosion.
- Removal or retraction of internal corrosion monitoring equipment from pipeline system prior to pigging operations.
- Establishing methods to reduce the effects of corrosive gases and natural gas liquids.
- Monitoring the effectiveness of internal corrosion protection systems.

PROCEDURES

TESTS AND MEASUREMENTS

When internal corrosion is observed or suspected, coupons or other monitoring devices shall be employed. Each coupon shall be evaluated at intervals not exceeding six months with exception to monitoring locations where two corrosion coupons are installed in tandem. The additional coupon with the long-term exposure period (12 to 24 months) shall be analyzed for information only. Each electrical resistance probe and corrosion inhibitor injection usage shall be checked two times a year, with intervals not exceeding 7-1/2 months. Post exposure coupon analysis shall be utilized to determine the effectiveness of corrosion inhibition and the monitoring of corrosion rates to a moderate level. The results shall be maintained at the appropriate location.

Whenever a pipeline is cut for any reason a qualified person or foreman shall inspect the pipe for internal corrosion. Adjacent piping must also be inspected to determine that the maximum size of the corrosion pits is within acceptable limits in reference to ASME Guideline B31-G.

If any indication of internal corrosion is observed when a piece of pipe is removed (including coupons removed during hot taps), and including pitting on an orifice plate or inside a meter tube, or if a corrosive environment is known to exist inside any pipeline or structure, the Corrosion Supervisor shall initiate a program to determine the cause and approve the necessary corrective measures.

Pigging fluid samples should be taken for monitoring corrosive elements, or where pigging cannot be performed, random samples should be taken at available locations. Samples should be sent to the companies preferred chemical Company for analysis to ensure they are within the threshold limits for various corrosive compounds.

References: DOT 49 CFR 192.475

TANK OPERATIONS AND MAINTENANCE

GENERAL

The following procedure outlines the steps taken by operations to ensure tanks are operated properly to reduce the risk of venting gas or spilling liquid.

RESPONSIBILITY

Within each operating area, all operations personnel shall be responsible for reporting any tank related issues to the appropriate Pipeline Foreman and/or Pipeline Operator.

The Pipeline Foreman is responsible for:

- Ensuring adequate automation devices have been installed to allow the Pipeline Operator to operate/maintain the tanks without direct oversight.
- Ensuring pressure/level switches are in good operating condition and have not been bypassed.
- Ensuring containments are in good condition following the EPA Spill Prevention, Control and Countermeasure plan (when applicable).

The Pipeline Operator is responsible for:

- Ensuring tank vent pressure is within normal operating limits.
- Ensuring tank levels are within normal operating limits.
- Ensuring tank vent pressure alarms are responded to in a timely manner.
- Ensuring tank level alarms are responded to in a timely manner.

PROCEDURE

In the event that a Pipeline Operator receives a high tank vent pressure alarm, he/she shall respond in a timely manner. The Operator must identify and correct the issue causing the high tank pressure during his/her shift. The issue shall be reported to the appropriate Pipeline Foreman immediately. If gas escapes the closed vent system and enters the atmosphere, the emission event shall be reported in the company's emission database (RADAR) within 2 hours or as soon as possible – Not to exceed 24 hours.

In the event that a Pipeline Operator receives a high tank level alarm, he/she shall respond in a timely manner. The Operator must switch production tanks and properly isolate the full tank following all regulatory guidelines. In the event a spill occurs, the spill must be reported to the company's ESH department as soon as possible – Not to exceed 12 hours. If it is determined that the tank level is increasing rapidly due to pigging operations, the Pipeline Foreman and/or Pipeline Operator may decide to throttle the volumes through the facility to prevent tank overflow.

SECTION 300 – PROCEDURES TO REDUCE RELEASES

REDUCING VENTING AND FLARING DURING MAINTENANCE

GENERAL

The following procedure establishes guideline to reduce venting and flaring during construction, maintenance, emergencies, and equipment malfunctions.

RESPONSIBILITY

Within each operating area, all operations personnel shall be responsible for reducing and reporting any flaring and venting due to construction or maintenance activities, emergencies and/or equipment malfunctions.

If gas is emitted to the atmosphere, it is the area pipeline foreman's responsibility to report the emission event in the company's emission database (RADAR) within 2 hours or as soon as possible – Not to exceed 24 hours.

PROCEDURES

CONSTRUCTION AND MAINTENANCE ACTIVITIES

Any construction or maintenance activities that will significantly affect upstream production shall be reported following the "Reporting Scheduled and Unscheduled Maintenance" procedure in this manual.

If the construction or maintenance activities require a pipeline blowdown, all efforts should be made to reduce the gas vented or flared by utilizing existing infrastructure. If the option doesn't exist to utilize infrastructure, a flare trailer with an appropriate meter shall be used to prevent venting gas to the atmosphere. If a flare trailer is not available or is deemed a safety hazard, the pipeline should be isolated as close to the affected area as possible and blown down following the "Purging and Blowdown of Pipelines" procedure in this manual.

EMERGENCIES AND EQUIPMENT MALFUNCTIONS

In the event of an emergency event or equipment malfunction, the pipeline shall be isolated as close to the affected area to reduce the amount of gas vented to atmosphere. If it is determined that the emergency event requires immediate depressurization of piping or equipment, the blowdown should occur following the "Purging and Blowdown of Pipelines" procedure in this manual.

REPORTING SCHEDULED MAINTENANCE AND EMERGENCIES TO UPSTREAM

GENERAL

The following procedure establishes guidelines for reporting scheduled and unscheduled maintenance activities to upstream operators. Timely reporting will give the upstream operator the ability to reduce flaring or venting due to elevated line pressures by cutting back or shutting in producing wells.

RESPONSIBILITY

Within each operating area, the Pipeline Foreman will be responsible for reporting the scheduled or unscheduled maintenance activity to the appropriate upstream operator. When rental or leased gas compressors are installed, it is crucial that the compressor company understands that the scheduled or unscheduled maintenance must be communicated to company personnel in a timely manner.

PROCEDURES

SCHEDULED PIPELINE OR COMPRESSOR OUTAGE

The area Pipeline Foreman shall communicate the scheduled outage no less than 14 days prior to the date of the activity. The notification shall be delivered verbally to the upstream operator via telephone and followed up electronically through email to MidstreamNotifications@cimarex.com and must include the following;

- Pipeline Operator Name
- Notice Date
- Upstream Operator (Affected)
- Brief description of the scheduled maintenance
- Individual(s) contacted & contact information
- Date and time contact was made
- Notification delivery method (email, certified mail, other)
- Affected Well or Facility
- Expected duration of service interruption
- Out of service date and time
- Return to service date and time
- Name & Title of individual reporting the scheduled outage

UNSCHEDULED PIPELINE OR COMPRESSOR OUTAGE

The area Pipeline Foreman shall communicate the unscheduled outage as soon as possible but no more than 12 hours after the discovery. A follow-up with written confirmation shall be sent out within 24 hours of discovery. The notification shall be delivered verbally to the upstream operator via telephone and followed up electronically through email to MidstreamNotifications@cimarex.com and must include the following;

- Pipeline Operator Name
- Notice Date
- Upstream Operator (Affected)

- Brief description of the unscheduled maintenance
- Individual(s) contacted & contact information
- Date and time contact was made
- Notification delivery method (email, certified mail, other)
- Affected Well or Facility
- Expected duration of service interruption
- Out of service date and time
- Return to service date and time
- Name & Title of individual reporting the unscheduled outage

RECORDS

Operator shall make and keep a record of each notification for no less than five years and make such records available for inspection upon request.

References: NM OCD "Notification to Upstream Operators" form

EMERGENCY RESPONSE

GENERAL

The Emergency Response Plan (ERP) is designed to provide the Company employees and designated Incident Management Team (IMT) members with the information necessary to respond to incidents in a safe, rapid, effective, and efficient manner. For purposes of the Company ERP, incidents are defined as events that happen within the facility or outside the facility (including well sites) that create unacceptable impacts on people, the environment, or property and require emergency response operations. The ERP's primary goal is to help Cimarex prevent as far as practical, any injury or loss of life, damage to property, wildlife, or the environment. The health and safety of the public, Cimarex employees, and its contractors will always be the primary objective of the ERP.

RESPONSIBILITY

Each employee of the Company is to follow the Cimarex Operations Tactical Response Plan and the Cimarex Emergency Response Quick Guide.

DOCUMENTS

Exhibit 4 – Spring 2021 ER Quick Guide

Exhibit 5 – 20210405 Cimarex Corporate ERP

CIMAREX	Midstream Engineering Standards	Standard No. 31020
		Page 1 of 13
Keeper Approval Signature & Date: Brian M. Moore 6/26/20	GENERAL REQUIRMENTS FOR PRESSURE TESTING	Cimarex Approval Signature & Date: 6/26/2020

Review and Revision History

Section	Date	Rev	Details
		0	Original Issue

Table of Contents

1 SCOPE

1.1 This standard outlines the minimum requirements for pressure testing of all steel piping and pipeline facilities on the COMPANY's system. This standard establishes the methods and equipment for conducting and documenting pressure tests of piping and pipeline facilities to meet the pressure test requirements determined in accordance with this standard and specified on project drawings and contract specifications. If conflicts exist between this Standard and the listed codes, regulations and policies or between the listed codes, regulations and policies, the more stringent requirement will apply unless agreed by COMPANY in writing that the lesser requirement is acceptable.

1.2 No pressure test is required for vent or drain lines that are open to atmosphere, or for single pipeline components installed as an addition or replacement in an operating facility. Sensitive components such as relief valves, regulators, instruments, control valves and related items that may be damaged at elevated pressures shall either be removed or isolated from the system during testing.

2 CODES AND POLICIES

DOT 49 CFR Part 192 – Transportation of Natural Gas and Other Gas by Pipeline
DOT 49 CFR Part 193 – Liquefied Natural Gas Facilities
DOT 49 CFR Part 195 – Transportation of Hazardous Liquids by Pipeline
ASME B31.3 – Process Piping
ASME B31.4 – Pipeline Transportation Systems for Liquids and Slurries
ASME B31.8 – Gas Transmission and Distribution Piping Systems

COMPANY Construction Specification(s) (CS):

CS 41020 Hydrostatic Testing of Gas Pipelines

COMPANY Engineering Standard(s) (ES):

If an Engineering Standard is not officially approved, then it should be used as a guideline until it has obtained the appropriate approvals per Engineering Standard 11000.

ES 13160 Maximum Allowable Operating Pressure Criteria

COMPANY Engineering Form(s):

FRM31020.1	Pressure Test Letter
FRM31020.2	Hydrotest Plan & Profile
FRM31020.3	Hydrotest Pressure Summary - Pipeline
FRM31020.4	Hydrotest Pressure Summary - Facility
FRM31020.5	Hydrotest Section Pressure & Temperature Data Log
FRM31020.6	Hydrotest Section Failure Report

FRM31020.7 Hydrotest Pressure Stroke Log
FRM31020.8 Hydrotest Completion Questionnaire

3 DEFINITIONS

COMPANY – Cimarex Energy Midstream, the Owner and Operator of subject matter plant, pipeline, or facility midstream asset.

COMPANY REPRESENTATIVE – COMPANY assigned Construction representative, usually third party chief inspector or inspector.

DESIGN PRESSURE – the pressure used to select the wall thickness and grade of pipe and fittings and to specify the rating (or pressure class) of pressure rated components to meet the applicable design code requirements.

DOCUMENTED TEST PRESSURE – the minimum test pressure at the highest elevation of the pipeline during the test period, and used for record summaries and determination of MAOP.

LEAK TEST – the pressurization of piping to a minimum stress level or pressure and direct or indirect observation for a defined time period for confirmation that no leaks are present

MAXIMUM ALLOWABLE OPERATING PRESSURE (MAOP) – the maximum pressure at which the pipeline or facility may be operated in accordance with the provisions of the applicable code or regulation. See Engineering Standard 13160 for MAOP determination criteria.

PERCENT HOOP STRESS –the fraction of actual stress produced in the pipe at MAOP to the specified minimum yield strength of the pipe.

$$\%\ Hoop\ Stress = \frac{P \cdot D}{2 \cdot S \cdot t}$$ Where,

P = Internal design pressure or MAOP (psig),
D = Actual outside diameter (inches),
S = Specified Minimum Yield Strength (psi),
(Gr. B = 35,000, X42 = 42,000, etc.)
t = Wall thickness of material (inches).

PIPELINE COMPONENT – a valve, flange, standard fitting, fabricated assembly or similar item. A fabricated assembly is one that is constructed prior to installation and installed as a single unit.

PRE-TESTED PIPE – pipe tested per this standard and placed in storage for emergency replacement of in service pipe.

STABILIZATION PERIOD – the time period, following the fill of the system with the test medium, during which temperatures of the test medium, pipe and backfill equalize to the extent necessary to conduct a valid LEAK TEST.

STRENGTH TEST –the pressurization of piping to a minimum stress level or pressure and maintaining this stress level or pressure for a predetermined time interval to verify pipe, component, and joint strength.

4 GENERAL

4.1 PURPOSE

4.1.1 The pressure testing of each pipeline or facility, or part thereof, shall be performed in accordance with this standard, the requirements specified by appropriate project drawings and specifications and all applicable permits.

a. Test specifications should include project DESIGN PRESSURE or MAOP, test medium, test pressures (minimum and maximum), test hold period and test sections and, if applicable, hydrostatic test profile drawings.

b. Test sections should be established considering length of section, elevation differences, water sources, physical access and class location as well as differing section test requirements.

c. The minimum STABILIZATION PERIOD may be specified in the project test specifications, if known. Otherwise, the STABILIZATION PERIOD will be determined based on actual conditions at the time of the test to the satisfaction of the COMPANY REPRESENTATIVE.

4.1.2 Facilities and piping systems require testing before being placed in service, regardless of whether they are installed as a temporary or permanent installation. Prefabricated assemblies are not required to be re-tested at the time of installation if a post installation test is impractical and they are pre-tested per this standard prior to installation.

4.1.3 Pneumatic testing may be used only when specified in the project drawings or specifications or when approved by the COMPANY REPRESENTATIVE. Pneumatic testing shall be carefully planned and closely supervised. When air is specified as the test medium, air, nitrogen or any inert gas may be used.

4.1.4 All hydrostatic testing at pipe temperatures below 32°F shall be approved by COMPANY REPRESENTATIVE.

4.1.5 Testing shall be conducted in accordance with a pre-established test plan which has been reviewed and approved by the COMPANY REPRESENTATIVE prior to the start of testing.

4.1.6 On test sections of pipe not previously in operation, where dented, crimped or similar damaged areas may exist, a gauging pig shall be run through the section if deemed

necessary by the COMPANY REPRESENTATIVE. Any such restrictions which are located shall be corrected in accordance with applicable COMPANY specifications prior to the start of pressure testing.

a. All pipe 8" & over and > ½ mile in length shall have a gauging pig run, unless deemed impractical by the COMPANY REPRESENTATIVE. Gauge plate shall be sized for 95% of internal diameter unless otherwise specified by COMPANY REPRESENTATIVE.

4.1.7 This standard is generally written for hydrostatic testing using water as the test medium and identifies some special requirements for pneumatic testing. However, as applicable, the provisions for hydrostatic testing shall also apply to testing with any medium including pneumatic testing. Be aware that other test media which may be specified, such as the operating fluid, may have peculiarities not covered in this standard.

4.2 STABILIZATION PERIOD

4.2.1 A period of time must be allowed following the filling of the test section with test medium to allow the temperatures of the test medium, pipe and backfill to equalize. The STABILIZATION PERIOD must be sufficient to allow proper LEAK TEST based on temperature-pressure correlation.

4.2.2 Unless specified otherwise on project drawings or specifications, the COMPANY REPRESENTATIVE responsible for testing shall determine the length of the STABILIZATION PERIOD based on actual test conditions.

4.3 LEAK TEST

4.3.1 A LEAK TEST will be conducted after the STABILIZATION PERIOD and concurrently with a STRENGTH TEST unless no STRENGTH TEST is required.

4.3.2 For piping that is entirely visible during the test, the LEAK TEST will consist of observation of the piping while under pressure to check for visible or audible evidence of a leak.

4.3.3 For piping below ground or otherwise not visible, the LEAK TEST will consist of an approved procedure whereby test pressure variations are accounted for, taking into account the effects of temperature and pressure changes on the test medium and pipe. Pressure loss that cannot be satisfactorily attributed to these factors, measurement error or other factors peculiar to the situation will be considered evidence of a leak.

4.4 STRENGTH TEST

4.4.1 The hold period for the STRENGTH TEST shall be as specified on FRM.31020.1 Pressure Test Letter. During this time period, the test section may be repressured or depressured as required to maintain the test pressure within the established limits. CONTRACTOR shall receive COMPANY REPRESENTATIVE approval before repressuring. For piping below ground or otherwise not visible, the CONTRACTOR responsible for testing shall maintain accurate records including depressuring and repressuring times, pressures and volumes during the hold period and conduct a LEAK TEST.

4.5 TEST INSTRUMENTS AND EQUIPMENT

4.5.1 The instruments and equipment listed in the sections below are representative of such items necessary to achieve test results of acceptable accuracy. Reasonable substitutes may be approved by COMPANY REPRESENTATIVE provided that all of the necessary data is obtained to an accuracy equivalent to that indicated and as required to validate the test results.

4.5.2 All instruments used to obtain documented test pressures shall have been calibrated within the last 12 months. Gauge calibration shall be traceable to the U.S. Bureau of Standards. The operating condition and calibration of all instruments shall be to the satisfaction of COMPANY REPRESENTATIVE.

4.5.3 All equipment, headers, valves, connections, etc., which are involved in the test shall be in good condition and in proper place. See Construction Specification 41020 for test header design suggestions.

4.5.4 Hydrostatic Testing

- Deadweight Gauge or Digital Gauges: Range to be compatible with maximum test pressure; sensitivity to be greater of 0.5 psi or 0.1% of reading.
- Pressure Recorder: Range to be compatible with the maximum test pressure with continuous, 24-hour charts graduated to at least 2% of minimum test pressure.
- Pressure Gauge: Range to be compatible with the maximum test pressure.
- Temperature Recorder: For measuring water/pipe temperature with a 0°F to 100°F range and continuous charts readable to nearest 1°F.
- Indicating Thermometer: For measuring fill water and ambient temperature and calibration of instruments. Range 0 to 180°F readable to 1°F.
- Flow Meter: Cumulative volume in cubic feet or gallons graduated to nearest cubic foot or gallon.

- Fill Pump: Centrifugal pump with a nominal capacity of 500 to 1200 GPM at static pressure of 500 psig are recommended. Smaller projects should have pump sized to fill the line in a reasonable length of time.
- Pressure Pump: Positive displacement with pressure capability at least 120% of required maximum test pressure.
- Water Filter: As required, when fill water quality dictates filtering. Continuous operating; 100 mesh filtration minimum.
- Dewatering Pigs: Cup, swab, poly foam and/or disc type.

4.5.5 Pneumatic Testing

- Deadweight Gauge or Digital Gauge: Pressure range to be compatible with the maximum test pressure; sensitivity 0.5 psi or 0.1% of reading, whichever is greater.
- Pressure Recorder: Pressure range to be compatible with the maximum test pressure with continuous, 24-hour charts graduated to at least 2% of minimum test pressure.
- Pressure Gauge: Pressure range to be compatible with the maximum test pressure.
- Indicating Thermometer: For measuring ambient temperature. Range 0°F – 180°F readable to 1°F.

4.6 TEST REQUIREMENTS – TABLE 1 & 2

TABLE 1 Facility Description	Nominal Pipe Size Range	Installed in Class Location	Percent Hoop Stress at MAOP	Test Medium	Minimum Test Pressure	Maximum Test Pressure	Hold Period: Leak Test	Hold Period: Strength Test	Ref. Notes
I. ONSHORE GAS PIPELINES									
A. Gas & Hydrocarbon Liquid Transmission & Gas Gathering Pipelines (including re-qualification)	< 6 in.	All	≤ 72%	Water	1.5 MAOP	100% SMYS at lowest elevation or other limiting component		8 hours	
	≥ 6 in.	All	≤ 72%	Water	90% SMYS at highest elevation (1)	100% SMYS at lowest elevation or other limiting component		8 hours	
B. Hot Taps & Stopple Installations									
1. Pre-installation test of tap fabrication (pipe, valve, flange, etc.)	All	1, 2 & 3	≤ 60% & > 20%	Water	1.5 MAOP	100% SMYS or other limiting component		4 hours	
2. Branch weld test after installation. Complete test before tapping.	All	All		Nitrogen	LEAK TEST at pressure = line pressure at time of test but not > the pressure determined per §4.6.1.e			30 min.	
C. Fabricated Units, Bore, & Short Sections of Pipe									
1. Post Installation Test	All	All	Test to same pressure for same duration as would be required for pipeline in same location. See §I. A						
2. Pre-installation Test	< 6 in.	All	≤ 72%	Water	1.5 MAOP	100% SMYS		4 hours	
	≥ 6 in.	All	≤ 72%	Water	90% SMYS	100% SMYS		4 hours	
D. Pre-Tested Stock Pipe	< 6 in.	All	≤ 72%	Water or Nitrogen	2225 PSIG or 90% SMYS whichever is less	100% SMYS		4 hours	
	≥ 6 in.	All	≤ 72%	Water or Nitrogen	90% SMYS (1)	100% SMYS		4 hours	

(1) with Engineering Manager Approval, minimum test pressure may be lowered to 1.5 times the MAOP

TABLE 1 Facility Description		Nominal Pipe Size Range	Installed in Class Location	Percent Hoop Stress at MAOP	Test Medium	Minimum Test Pressure	Maximum Test Pressure	Hold Period		Nominal Pipe Size Range
								Leak Test	Strength Test	
II. STATION AND PLANT PIPING ONSHORE										
A.	Gas/Liquid Process Piping	All	1, 2 & 3	≤ 50%	Water	1.5 MAOP	100% SMYS or other limiting component		8 hours	
B.	Fabricated Units & Short Sections of Pipe	Pre-installation, MAOP qualifying test permitted as for Onshore Gas Pipelines when post installation test is impractical. See Item §I. A and I.C. for criteria.								
C.	Meter or Regulator Stations (in-place test)	All	1, 2 & 3	≤ 50%	Water	1.5 MAOP	100% SMYS or other limiting component		8 hours	
D.	Control, ESD, Power & Other Miscellaneous Gas Piping	1" typical	1	≤ 30%	Air	1.5 MAOP	100% SMYS or other limiting component		1 hour	
E.	Air Lines (starting, utility & instrument)	All		>150 psig	Air	1.5 MAOP	100% SMYS or other limiting component		1 hour	
				≤150 psig	Air	Test for leaks at operating pressure.				
F.	Engine Lube Oil, Amine & Glycol	All	1	≤ 50%	Operating Fluid or Water	1.5 MAOP	100% SMYS or other limiting component		1 hour	
G.	Hydraulic Oil (low & high pressure)	All	1	≤ 50%	Operating Fluid or Water	1.5 MAOP	100% SMYS or other limiting component		4 hours	

4.6.1 Notes to Table of Test Requirements

a. When air is indicated as the testing medium, air, nitrogen or any inert gas may be used. Water may also be used if contamination or freeze-up problems or excessive weight loading of the test section will not occur.

b. Maximum Test Pressure - The maximum test pressure is to define a pressure range above the specified minimum test pressure to allow for such variables as change in elevation in the test section, temperature changes, piping or equipment limitations, etc., but shall not exceed the lowest of the following as applicable:

- Pipe & Fittings: When water is used, the hoop stress at 100% SMYS of the pipe or fittings.
- Flanged Components: For pressure rated components, 1.5 times the rating rounded to the next higher 25 psi increment. See Table 2 for maximum pressures for material groups 1.1 and 1.2, or ASME B16.5 Tables 2-1.1 through 2-3.17 for other groups.

TABLE 2 – MINIMUM TEST PRESSURE FOR GROUP 1.1 & 1.2 MATERIALS

Flange Class	150	300	400	600	900	1500	2500
	Hydrostatic Test Pressure (psig) at temperatures < 100°F						
Group 1.1	450	1125	1500	2225	3350	5575	9275
Group 1.2	450	1125	1500	2250	3375	5625	9375
ASTM Specifications included in material groups							
1			. LF2	. LF3	. LF6 Cl. 1	. WCB	
2		. LF6 Cl. 2	. WCC	. LCC	. LC2	. LC3	

c. For fabricated units and short sections of pipe to be installed in any type facility for which a post installation test is impractical, a pre-installation test of four (4) hours duration (one hour if hoop stress at MAOP is not over 30% SMYS) may be used provided all of the piping is visible and is checked for leaks periodically during the test.

d. Individual branch connections with a valve (e.g., hot tap connections) are not, in themselves, considered fabricated assemblies. However, fabricated assemblies may contain branch connections and hot taps.

e. The LEAK TEST pressure for a hot tap or stopple connection after welding to the header pipe and prior to tapping should not exceed the pressure determined by one of the following formulas, whichever results in the lower pressure.

$P=10.67 \cdot S \cdot (t/d)^2$, or
$P=2 \cdot S \cdot (t/D) \cdot (0.40)$, where
P = Maximum test pressure (psig) (see Table 2),

d = Inside diameter of branch pipe (inches),
D = Actual outside diameter of header pipe (inches),
t = Wall thickness of header (inches),
S = Specified Minimum Yield Strength of header pipe material (psi),
Gr. B = 35,000, X-42 = 42,000, etc.) (If unknown, use 24,000.)

f. For hydrostatic tests, pressures shall be calculated for the test recording locations allowing for differences in pipeline elevations.

g. If a failure or leak in the pipe or a component occurs during the test such that the test pressure cannot be maintained, the test shall be restarted, and engineering shall review the failure.

4.7 PRESSURE & TEMPERATURE CHARTS

4.7.1 A continuous pressure recording chart or printout shall be used in addition to a log of test pressure. Fluid temperature readings shall be recorded using a recording chart or logged at least hourly except for tests of above ground piping that can visually be inspected for leaks. NOTE: The intent and purpose of requiring both a pressure recording and a test pressure log is to demonstrate continuity of the pressure during the test interval while documenting the pressure level to test pressure gauge accuracy.

4.7.2 Pressure Charts

- The date and the time test is started and the time at which the test period ends shall be noted on the chart.
- Charts must show "pressure up" line and "bleed down" line, as well as recording of pressure during the test interval.
- Drastic deviations in the recorded pressure shall be noted and explained on the test log.
- The pipeline or facility being tested shall be identified by name and/or number and AFE number on the chart. If more than one test section is involved, the test section number and location by station number or mile post for pipelines or drawing number for stations shall also be indicated.
- The pipe OD, wall thickness, and grade shall be noted on the chart.
- Charts shall be signed by a COMPANY REPRESENTATIVE.

4.7.3 Temperature Data - Test Fluid

- Identification information and signatures shall be the same as for pressure charts.
- Temperature readings may be logged manually at intervals sufficient to record temperature changes, but not to exceed one (1) hour.

4.8 PRESSURE TEST RECORD FORMS – TABLE 3

4.8.1 The COMPANY pressure test forms serve as permanent historical information for each pipeline or facility tested. Therefore, it is mandatory that all required forms be filled out completely and accurately. Forms shall be completed in the field by the test engineer or technician, except when instructions specify otherwise.

4.8.2 Only COMPANY pressure test forms shall be used, unless approved otherwise. The required Engineering Standard forms, as applicable, are listed in Table 3 of this standard. Instructions for completing forms are included on the forms. Copy the applicable standard to obtain working forms.

4.8.3 The pressure to be used for record summaries and determination of MAOP will be the minimum test pressure at the highest elevation of the pipeline during the test period.

4.8.4 Approval signature shall be made on each form by the designated person.

4.8.5 All test forms, pressure charts and temperature charts or logs shall be submitted with the project as-built data.

Table 3: **PRESSURE TESTING DOCUMENTATION REQUIRED**

Test Documents		**Pipelines**	**Miscellaneous Fabrications**	**Plant/Station Facilities**
FRM31020.1	Pressure Test Letter	Required	Required	Required
FRM31020.2	Test Section Plan & Profile	Plan required for limits of test (1)	- - - - -	- - - - -
FRM31020.3	Test Section Pressure Summary - Pipeline	Required for multiple sections (3)	Required for multiple sections (3)	- - - - -
FRM31020.4	Test Section Pressure Summary - Facility	- - - - -	- - - - -	Required for multiple sections (3)
FRM31020.5	Test Section Pressure & Temperature Data Log	Required	Required	Required
FRM31020.6	Test Section Pressure Failure Report	Required (4)	Required (4)	Required (4)
FRM31020.7	Test Pressure Stroke Log	As Needed	As Needed	As Needed
FRM31020.8	Pressure Test Completion Questionnaire	Required	Required	Required

Engineering Standard Ref.		**Pressure and Temperature Chart and/or Log**
31020 §4.7	Pressure Recording Chart	Required on all tests except for test intervals less than or equal to 2 hours for which the conditions in Section 8.1.2 are met.
31020 §4.7	Ambient Temperature Recording	Required on all tests. Log on appropriate form or use recording chart.
31020 §4.7	Fluid Temperature Recording	Required on all tests except tests of above ground piping that can be visually inspected for leaks. Log on appropriate form or use recording chart.

NOTES (1) Test Plan Profile not required if all test section limits are shown on other as-built drawings and reference is made to those drawing numbers.

(2) If pretested stock pipe is used, a copy of test charts and pressure logs must be submitted as part of the as-built package.

(3) Only use FRM31020.3 and FRM31020.4 when more than one test section is required.

(4) Only use FRM31020.6 in the event of a test failure.

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Keeper Approval Signature & Date:	HYDROSTATIC TESTING OF GAS PIPELINES	Cimarex Approval Signature & Date:

Review and Revision History

Section	Date	Rev	Details
All Sections	07/15/20	0	Original Issue

Table of Contents

1. SCOPE

This Standard is to complement and expand upon the codes and policies listed below and to provide project specific requirements. Hydrostatic testing or uprating of the pipelines shall be in accordance with the minimum standards of the following codes and policies unless more stringent requirements are required in this Standard. If conflicts exist between this Standard and the listed codes, regulations and policies or between the listed codes, regulations and policies, the more stringent requirement will apply unless agreed by COMPANY in writing that the lesser requirement is acceptable.

2. CODES AND POLICIES

DOT 49 CFR Part 192 – Transportation of Natural Gas and Other Gas by Pipeline
ASME B31.8 – Gas Transmission and Distribution Piping Systems (Gas Lines)

COMPANY Engineering Standard (ES)

If the Engineering Standard is not officially approved then it should be used as an engineering guideline until it has the appropriate approvals per Engineering Standard 11000.

ES 31020 General Requirements for Pressure Testing

COMPANY Engineering Forms

FRM31020.1	Pressure Test Letter
FRM31020.2	Test Section Plan & Profile
FRM31020.3	Test Section Pressure Summary - Pipeline
FRM31020.4	Test Section Pressure Summary - Facility
FRM31020.5	Test Section Pressure & Temperature Data Log
FRM31020.6	Test Section Failure Report
FRM31020.7	Test Pressure Stroke Log

3. DEFINITIONS

COMPANY – Cimarex Energy Midstream, the Owner and Operator of subject matter plant, pipeline, or facility midstream asset.

CONTRACTOR – the individual or vendor providing services and/or materials to COMPANY.

COMPANY REPRESENTATIVE – COMPANY assigned Construction representative, usually third party chief inspector or inspector.

LEAK TEST – the pressurization of piping to a minimum stress level or pressure and direct or indirect observation for a defined time period for confirmation that no leaks are present

MAXIMUM ALLOWABLE OPERATING PRESSURE (MAOP) – the maximum pressure at which the pipeline or facility may be operated in accordance with the provisions of the applicable code or regulation. See Engineering Standard 13160 for MAOP determination criteria.

PRESSURE VARIANCE – the desired pressure test window that provides a large enough buffer or variance above the minimum test pressure at the highest elevation and below the maximum test pressure at the lowest elevation that ensures the validity of the pressure test to meet the designed MAOP and prevents over pressuring of the test section.

STABILIZATION PERIOD – the time period, following the fill of the system with the test medium, during which temperatures of the test medium, pipe and backfill equalize to the extent necessary to conduct a valid LEAK TEST.

STRENGTH TEST – the pressurization of piping to a minimum stress level or pressure and maintaining this stress level or pressure for a predetermined time interval to verify pipe, component, and joint strength.

TEMPORARY WELDS – the welding of any non-permanent pipe, end caps, fittings or test headers that will not become part of the permanent pipeline after testing and/or repair.

4. GENERAL

4.1. ESTABLISHING TEST PRESSURES

4.1.1. The test pressures for the mainline pipe, fittings, and valve settings are established in accordance with DOT CFR Part 192 minimum test pressures for qualifying Class 1, 2, and 3 location pipe.

4.1.2. The minimum and maximum test pressures at the recorder established for the pipeline are based on the currently available pipeline elevation profile, and are also acceptable limits for the piping and fittings located within this segment of the line.

4.1.3. The minimum and maximum test pressures at the recorder established for the facilities are based assuming no change in elevation profile, and are also acceptable limits for the piping and fittings located within the facility.

4.1.4. COMPANY will provide the test pressure and test duration to the COMPANY REPRESENTATIVE and CONTRACTOR using the FRM.31020.1 Pressure Test Letter.

4.2. ASSIGNMENT OF RESPONSIBILITIES

4.2.1. The CONTRACTOR and COMPANY REPRESENTATIVE are responsible for being certain that the testing is performed in accordance with this Standard.

4.2.2. The CONTRACTOR performing the test shall be accountable to the COMPANY REPRESENTATIVE and shall be responsible for completing all test records including charts, reports, forms, calculations, etc. and for transmitting the completed, signed and dated records, charts, reports, forms, calculations and other relevant documents to the COMPANY REPRESENTATIVE who will be responsible for transmitting these to the COMPANY's Project Manager via the completed Job Book.

4.2.3. All test records shall be approved by the signatures from the COMPANY REPRESENTATIVE and the CONTRACTOR.

4.2.4. Prior to the start of the testing program, the Test Inspector, COMPANY REPRESENTATIVE, CONTRACTOR, and Third Party Testing Subcontractor (if applicable) shall become thoroughly familiar with the Contract Documents, all construction procedures, right-of-way restrictions for pressure testing, specifications, drawings, and forms.

4.2.5. If the CONTRACTOR elects to subcontract the testing, he shall obtain COMPANY's written approval of the subcontractor prior to the start of testing.

4.2.6. Residents within close proximity of the facility being tested, and state and local enforcement agencies, if applicable, shall be advised by COMPANY of the testing program and kept informed of the progress as necessary.

4.2.7. Lines of communication shall be established between the CONTRACTOR, COMPANY, Test Inspector(s), Subcontractor(s), and local authorities.

4.3. SAFETY

4.3.1. Before attempting any test, the COMPANY REPRESENTATIVE shall review the test specifications and procedures with the CONTRACTOR's Foreman and Testing Subcontractor's Foreman (if applicable) and any other relevant personnel to be certain that all equipment is adequate and duties are organized for successful completion of required tests. Any applicable standards and guidelines will be reviewed by all these personnel to assure compliance.

4.3.2. The CONTRACTOR shall take the following precautionary measures:

a. Completed CONTRACTOR Job Safety Analysis shall be completed and approved by COMPANY REPRESENTATIVE before any test activity initiates.

b. Plan arrangement of equipment to facilitate work while maintaining easy access around equipment and facilities.

c. At no time shall testing personnel attempt to tighten flanges fittings during testing. The pressure on the test segment must be reduced to 50% of test pressure. Threaded connections must be reduced to only local head pressure at repair location prior to tightening.

d. Review personnel assignments and individual qualifications.

e. Inform all personnel of assignments, responsibilities, and test requirements.

f. Before beginning tests, advise COMPANY to advise all who might be affected by failures during the testing activities such as residents, local authorities, etc.

4.3.3. When testing in a populated area, extensive public relations information (i.e., warning signs and security guards) may be required to protect the public from test hazards. Consult with local authorities regarding preliminary public relations work.

4.3.4. All pressure tests shall be conducted with due regard for the safety of life and property. Precautions shall be taken to see that all persons (including the general public and landowners) not directly engaged in the testing operations remain out of the test area insofar as practical during the test period.

4.3.5. All TEMPORARY WELDS subject to hydrostatic test pressure shall be 100% X-rayed prior to the start of the test.

4.3.6. CONTRACTOR shall locate the pressure recorder, deadweight gauge or digital gauges, and plotting table at least 100 ft. from the pipeline facility being tested. If the testing manifold contains a longitudinal seam, the test equipment shall be located on the side opposite the seam, if possible.

4.3.7. Whenever the pipeline is being pressurized and during the pressure hold, all personnel shall maintain a distance of at least 100 ft. from the pipeline facility including the test headers.

4.3.8. High-pressure pipe, hoses and fittings shall be used for connection of the pressure pump and manifolds.

4.3.9. The CONTRACTOR & COMPANY REPRESENTATIVE shall check and document the checking procedures of the following potentially dangerous activities and conditions prior to test operations.

a. Unrestrained and slip coupled water fill pipelines.

b. Fill pipelines unable to contain initial water pack pressures.

c. Improperly isolated manifolds and other facilities that are not adequately protected from damage in the event that violent failures or water surges occur.

d. Inadequate methods of isolating facilities being tested from test equipment and pumps.

e. Inadequate methods for verification of pig position in the manifolds. The CONTRACTOR shall measure the exact location of the pig(s) when loaded in the test header. The position, type, and direction of the pig(s) shall be indicated with a permanent type marker on the outside of the test header.

f. Improper depressurization of connecting pipelines before attempting to seal or break joint components.

g. Improper restraint, cribbing, or anchoring of dewatering discharge pipelines.

h. Unsafe working procedures and lack of good judgment during execution of the work.

4.3.10. Normal precautions taken by the CONTRACTOR shall include but not be limited to the following:

a. Restrain and anchor any connecting pressure hoses to prevent whipping after a hose failure with whip check or equivalent.

b. A check valve shall be installed at the test manifold and pump discharge.

c. Check all hoses, test connections, and fittings for proper pressure rating.

d. Note: Do not confuse burst and test pressures with the recommended operating pressure rating.

4.4. TEST EQUIPMENT REQUIRED

The CONTRACTOR shall furnish, operate, and maintain all test equipment including pumps, air compressors, caps, temporary launchers/receivers, test headers, pigs, temporary piping, dewatering structures and all other materials and equipment required to perform and complete the cleaning, filling, pressure testing, dewatering, drying and tie-in operations.

4.5. COMMUNICATION

CONTRACTOR shall supply a reliable communication solution. Preferably a sufficient quantity of two-way radios with adequate power output to maintain communications along the entire length of the test section to testing personnel as well as to COMPANY REPRESENTATIVE. Communication shall be maintained during all phases of the hydrostatic test including, but not limited to, cleaning, filling, strength testing, dewatering, and drying.

4.6. FILL PUMP(S)

The CONTRACTOR shall furnish centrifugal fill pump(s) capable of filling the pipeline at the maximum withdrawal rate permitted for the source.

4.7. PRESSURE PUMP

The CONTRACTOR shall furnish the pressure pump(s) to be used to apply test pressure to the section under test. It must be a positive-displacement pump suitable for pumping at the maximum test pressure and volume indicated by a stroke counter or meter.

4.8. FILLING SERVICE METER

The CONTRACTOR shall furnish a self-cleaning, 100-mesh strainer/filter, and a positive-displacement meter for filling the pipeline. The meter shall be sized to provide the maximum fill requirements of the fill pumps. The meter shall be tested and calibrated in accordance with requirements in Section 4.14 below by the manufacturer or approved neutral third party satisfactory to COMPANY and installed according to the manufacturer's specifications to ensure proper measurement. The manufacturer's calibration and test report shall be furnished to the COMPANY REPRESENTATIVE prior to start of any testing.

4.9. GAUGES AND RECORDERS

4.9.1. The CONTRACTOR shall supply the following gauges and recorders. Chart recorders and deadweight gauge shall be tested and calibrated in accordance with Section 4.14 below.

4.9.2. One (1) High-pressure deadweight gauge or digital gauge; 0-4000 psi range with 1-psi pressure intervals. Install at test site, one per test section.

4.9.3. One (1) Combination Temperature and Pressure Portable type 12" pressure recorders; appropriately sized with test pressure located in the chart mid-range, temperature element fully compensated, -20°F to 120°F range with continuous 24-hour charts graduated to at least 2% minimum test pressure. The temperature probe is to be buried in direct contact with the pipe at a minimum depth of at least 2 ft. The

soil above the bulb will then be backfilled and tamped to ground level. Analog or Digital recorder is permissible.

4.9.4. One (1) Portable type 12" temperature recorder, temperature element fully compensated, -20°F to 120°F range, 24 hour movement. Install to record ambient temperature at test site.

4.9.5. One (1) Gauge, pressure indicating, liquid filled, 4-1/2" dial, appropriate psi range. Install one at end of test section with pressure recorder.

4.9.6. Two (2) Thermometers, 0°F to 120°F range, 1/2°F increments. For checking recording thermometers, fill water and recording ambient temperatures.

4.10. TEST HEADERS

4.10.1. The CONTRACTOR shall furnish all material including pipe, fittings and valves for test headers and all other fill pipe, discharge pipe, connecting fittings, and materials for energy dissipating devices. All materials furnished by CONTRACTOR are subject to COMPANY approval.

4.10.2. Test headers will be fabricated in accordance with COMPANY test header drawings in the Appendix Figure(s) 3. Fabricated headers will be fabricated by the CONTRACTOR and shall be pre-tested.

4.10.3. Temporary Launchers/Receivers shall be furnished by the CONTRACTOR and installed at the end of each pipeline section to receive construction debris and the cleaning pigs from the pipeline section during the cleaning operation. COMPANY REPRESENTATIVE shall approve temporary fabrication before pig launch.

4.11. AIR COMPRESSOR EQUIPMENT

The CONTRACTOR shall furnish, operate, and maintain air compressor equipment of adequate capacity to propel the cleaning, dewatering and drying pigs through the pipeline while maintaining moderate discharge rates.

4.12. PIGS

The CONTRACTOR shall be responsible for supplying, maintaining and the performance of the pigs used for the filling, dewatering, cleaning, and drying operations. When specified by COMPANY, the CONTRACTOR will need to provide pigs capable of inserting radio tracking transmitters, and at a minimum two tracking receivers.

4.12.1. Cleaning Pigs

Brush/Scraper Pig – Poly coated abrasive bristle pig

4.12.2. Gauge Plate

Segmented hard body pig sized to 95% of smallest ID

4.12.3. Filling Pigs

2.5lb/ft^3 poly backed pig

4.12.4. Dewatering Pigs

2.5lb/ft^3 poly backed pig

4.12.5. Drying Pigs

2.5lb/ft^3 foam pig

4.13. LIGHTING/ENCLOSURES

4.13.1. It is preferred, but not required that the CONTRACTOR furnish a weather proof enclosed test trailer with sufficient lighting, and of sufficient size to house the pressure recorders, deadweights or digital gauges, and test personnel at the data procurement site of each test section during the complete fill, pressurization, test, and water disposal periods.

4.13.2. To assure stabilization of the instruments, the above enclosure shall rest on the ground at all times during operation of the test instruments.

4.13.3. For reasons of safety, the enclosure shall be a minimum of 100 feet from the test headers.

4.13.4. The CONTRACTOR shall furnish ample light for operating compressors, pumps, tents, doghouses enclosures and test manifolds connected to pumps or compressors during all darkness hours to fill, pressurize, retest, sample and dispose of water.

4.14. LOCATION AND CALIBRATION OF TEST EQUIPMENT

4.14.1. Temperature recorders, pressure recorders, deadweight or digital gauge testers and filling service meter shall be calibrated by manufacturer or a neutral third party satisfactory to COMPANY. The calibrations shall have been performed within six (6) months of the end of the expected hydrostatic test period and the certificates must be presented to COMPANY REPRESENTATIVE prior to commencement of each test section. Equipment with certifications that will expire prior to a completion of a test section cannot be used until the equipment has been recertified.

4.14.2. A 24-hour combination temperature/pressure recorder and pressure gauge shall be manifolded and installed on each end of the test section as shown on Figure 1

"Pressure Temperature Recorder Installation". At one end, a deadweight or digital gauge tester shall be included in the manifold and a temperature recorder to measure the ambient air temperature. Each manifold valve shall be installed so that each instrument may be isolated from the others.

4.14.3. For the mainline test section the temperature recorder is preferred, but not required to be located the lesser of 1000 ft or 1/3rd of the total test section distance from the end of the pipeline test section as shown on Figure 1 "Pressure Temperature Recorder Installation".

4.14.4. These recorders shall be located and sheltered, and the above ground portions of capillary lines insulated, so that they will not be affected by ambient temperatures or changes in injection fluid temperature because of close proximity to the injection pump.

4.14.5. The temperature bulbs for the pipeline test sections shall be secured directly to the bare pipe with suitable heat transfer compound, insulated and then backfilled (at least 18-inches but preferably to ground level) at least twelve (12) hours prior to the pressure test. The twelve (12) hours is required to provide adequate time for the fill water, pipe, and ground temperatures to stabilize.

4.15. FILLING PROCEDURE

4.15.1. The CONTRACTOR shall install a strainer/filter between the fill pump and the test header. The CONTRACTOR shall keep the back flush valve on the strainer/filter closed during filling and confirm test water is clean of salt and silt and relatively free of any other contaminants.

4.15.2. CONTRACTOR shall be responsible for setting up the pumps and transporting the water from the source to the test site. Water shall be tested prior to use, pH of the water shall be between 6.0-9.0.

4.15.3. CONTRACTOR shall be responsible for the proper disposal of materials back flushed from the strainer/filter or filter cartridges. The CONTRACTOR will not be allowed to back flush the strainer/filter into the source stream or other water source.

4.15.4. Prior to filling a test section with water, the CONTRACTOR shall make a final check to verify the following:

- Valve body drain plugs have been removed, carefully cleaned, taped (Teflon) and replaced.

- Valve body relief valves, if present have been removed, carefully cleaned, taped (Teflon), tagged and set aside for re-installation at the conclusion of the test.
- All valves are in full open position for filling.
- All pipe, hose and bolt connections are tight.
- Test manifolds are properly fabricated, including radiographic inspection of the TEMPORARY WELDS.
- Pumps and compressors are in good working condition.
- Instruments are ready for use (proper charts installed, ink pens filled, clocks wound, fresh batteries installed, correct calibration, etc.).
- Pigs are installed properly with respect to directional discharge.

4.15.5. The CONTRACTOR shall provide labor, supervision, materials and equipment as required for washing, and filling each section of pipeline with minimum interruptions during filling.

4.15.6. The CONTRACTOR's filling operations shall be continuous from start of filling until the test section is completely filled with water as follows:

- Initial pig runs with foam pigs should be run for loose debris and pig passage assurance.
- Line should be cleaned by air with sufficient number of brush or abrasive pig runs until debris content is satisfactory to COMPANY REPRESENTATIVE
- Launch gauge plate pig and identify any pipeline damage. Gauge plate condition should be approved and documented by COMPANY REPESENTATIVE.
- Launch one or more bi-directional squeegee type fill pigs using wash water if necessary and continue pumping until all pigs are received in the outlet test header (or trap) at the end of the test section. When specified by COMPANY, the CONTRACTOR shall utilize a radio tracking transmitter in at least the final pig (if not all) in order to track the displacement process.
- Stop pumping and check all connections for leaks and vent air as required.

- If pigs become lodged, CONTRACTOR shall locate and remove the pigs and refill the section at his expense. (See use of radio tracking transmitters in paragraph above).
- The rate of travel of the fill pig shall be controlled to prevent the acceleration of the fill pig while filling downhill portions of the test sections and to ensure that the water column behind the fill pig is not broken during the filling operation. The fill pig travel rate may be controlled by maintaining sufficient air backpressure on the fill pig to prevent breaking the fill water column by filling the test section with air/nitrogen prior to launching the fill pig. The CONTRACTOR is responsible for controlling the velocity of the fill pig and ensuring proper water fill.
- After the test section is filled, receipt of the fill pig in the test header shall be verified. Equalize pressure around the fill pig in test header prior to raising pressure to prevent collapse or movement of the pig when pressuring.
- Raise pressure on the section to the fill pump's maximum outlet pressure, but not to exceed 50% of specified test pressure of the pipe section at the low point of the test section. Stop the fill pump, check all connections for leaks and vent air as required. Bleed air from valve bodies.
- Check pressure on each end of test section and compare with calculated pressures.
- It is recommended that the test section have a hold pressure of approximately 25%-50% of the test pressure during the STABILIZATION PERIOD (typically overnight) unless approved otherwise by COMPANY REPRESENTATIVE.

4.16. TESTING PROCEDURE

4.16.1. Prior to testing, all backfilling shall be complete except test header locations, and other areas that are acceptable to the COMPANY REPRESENTATIVE.

4.16.2. Verify that blind flanges and bull plugs have been installed on all connections that are not being utilized for deadweight or digital gauges and pressure connections.

4.16.3. All block valves shall be half opened and "DANGER HIGH PRESSURE PIPELINE" signs placed in prominent locations. Valves shall be tested only in the half open position in order to prevent seal damage.

4.16.4. Upon reaching 50% of test pressure of the pipe, all work activities along the test section must be halted and heavy equipment moved away from the right- of-way. Heavy equipment shall not be allowed over the pipeline during or after the STRENGTH TEST.

4.16.5. Consider additional signage in high traffic areas that are not practical to close, such as major lease roads.

4.16.6. Disconnect fill pump and connect the pressure pump.

4.16.7. Check pressure and temperature recorders to ensure that they are properly installed, charts turning, pens marking, etc.

4.16.8. After the required STABILIZATION PERIOD, start the pressure pump and slowly raise the test section pressure at a controlled rate to 100% of minimum test pressure less the allowable PRESSURE VARIANCE at the low point of the test section. This will be the Minimum Test Pressure at the Test Location as noted on form FRM.31020.1 Pressure Test Letter.

4.16.9. Hold pressure for a suitable amount of time so that evidence of leaks can be detected in aboveground piping and any remaining air vented. Measure and record all water added to or bled from the test section.

4.17. STRENGTH TEST

4.17.1. At the start of the STRENGTH TEST, record the time, pipe temperature, ambient temperature, and deadweight or digital gauge pressure readings on COMPANY provided form FRM.31020.5 Test Section Pressure & Temperature Data Log. Repeat the recording of these readings every 15 minutes for the test duration required on form FRM.31020.1 Pressure Test Letter.

4.17.2. During the STRENGTH TEST the CONTRACTOR shall not allow the test section pressure to drop below the minimum test pressure required at the high point of the test section.

4.17.3. Any volume of water drained or added to maintain this pressure must be accurately measured and volumes recorded along with time, pipe and ambient temperatures. Water added should be recorded on form FRM.31020.7 Test Pressure Stroke Log.

4.17.4. The CONTRACTOR must perform calculations to show that any water added is due to temperature change and not from leaks and provide the calculations to COMPANY REPRESENTATIVE.

4.17.5. If for any reason the test pressure varies in excess of the limits stated above, the STRENGTH TEST must be voided and the restarted at that time. Notify COMPANY

REPRESENTATIVE in the event test pressure exceeds 100% of the minimum test pressure at lowest point in the test segment.

4.18. DEWATERING

4.18.1. Should COMPANY REPRESENTATIVE determine there is a biological risk or extended period before segment commissioning then a registered biocide may be injected to counteract the possible introduction of bacteria to the pipeline. The biocide may be run after the STRENGTH TEST is complete and will often be coordinated by COMPANY Operations once the line has been put in service. Disposal requirements should be carefully considered if biocide is introduced to the test water.

4.18.2. At the end of STRENGTH TEST if no leaks are indicated, and the test section is accepted by the COMPANY REPRESENTATIVE, the CONTRACTOR shall lower the pressure slowly by discharging the water into frac tanks.

4.18.3. All block valves shall be fully open for dewatering. Dewatering shall be accomplished by running the fill pigs, with compressed air, or nitrogen as required. The CONTRACTOR shall use an experienced operator to control the backpressure on the system and control the volume of water being discharged into frac tanks.

4.18.4. Discharge rates may not exceed the capacity of the dewatering filter device (if used). Dewatering must be done as a closed system to prevent possible air lock as shown on the Figure 2 Air Lock Drawing in the Appendix.

4.18.5. The backpressure however, must be maintained at a low enough level that it will not affect the propulsion medium appreciably. The volume discharged must be controlled to allow water filtration (if used) at the discharge point.

4.19. FABRICATED ASSEMBLIES

4.19.1. A four hour STRENGTH TEST is acceptable if the units or components are 100% visible. If any section is buried, the test length shall be a minimum of 8-hours.

4.19.2. Following the STRENGTH TEST all fabricated assemblies included in the adjacent pipeline STRENGTH TEST shall be internally cleaned and all valve body drain plugs shall be removed, water drained from the valve bodies, the plugs carefully cleaned, taped (Teflon) and replaced or reinstalled. Valve body relief valves removed for the test shall be taped and reinstalled.

4.19.3. Valves shall be placed in the full open position. To facilitate filling, testing, draining and drying of the main line valves and launcher and receivers units, CONTRACTOR

may need to test the components in individual sections then complete the assembly of the unit. All tie-in welds are to be inspected and 100% X-rayed.

4.20. TIE-IN, CLEANING, AND DRYING

4.20.1. The CONTRACTOR shall be responsible for coordination of all drying. The CONTRACTOR shall furnish, operate, and maintain air compressor equipment, or nitrogen supply equipment to propel the drying pigs. Temporary launcher and receiver assemblies (CONTRACTOR furnished) may then be used for cleaning and drying.

4.20.2. When the test sections have been dewatered, the test headers shall be removed and sections tied together making it a single pipeline segment. Tie-in welds are to be inspected and 100% X-rayed.

4.20.3. Initial Drying shall be performed by running squeegee pigs, with compressed air or nitrogen, from the launcher to receiver. These pigs shall be launched separately the lesser of 1,000 ft minimum or 1/3rd of the test section distance separation between each pig. Upon completion of the drying operation, the ends of the pipeline section shall be sealed to prevent the entry of dust, water or foreign substances and preserve the internal cleanliness of the pipeline.

4.20.4. Final Drying and Cleaning, the pipeline shall be cleaned to remove loosely adhered mill scale, rust, dirt, and other construction debris from the pipeline and dried. Steps shall include:

- Run lightweight, open-cell polyurethane foam pigs 2.5 lb/ft^{3}with dry air or nitrogen until no free water is present.
- Operate all valves connected to the pipeline to the 1/2 open position and open all drain valves while maintaining sufficient air pressure on the pipeline to remove the water in the valve cavity.
- The drying process will continue by pigging and/or purging with dry air or nitrogen until the complete pipeline, including valves and fittings, is clean and dry to a ¼” penetration on a 2.5lb./ft^3 foam pig.

4.20.5. The mainline block valves will remain inoperable and in the open position during the cleaning and drying operation with the exception of the drain valve procedure listed above.

4.20.6. The CONTRACTOR shall furnish all necessary supervision, field personnel, vehicles, communication equipment, dryers, compressors, fuel, pigs, manifolds, valves, launchers, receivers, dust suppression equipment and other materials and

equipment necessary for the cleaning and drying of the pipeline, including nitrogen if required.

4.20.7. Final cup pig to be run by CONTRACTOR for verification of pig count.

4.21. RECORDS

4.21.1. The CONTRACTOR performing tests shall furnish complete records of all phases of the testing program including recording charts, pressure log, pressure, temperature (both pipe and ambient) and weather conditions, make, style number and conditions of all pigs used in filling, dewatering and drying

4.21.2. In the event of failure or leak during STRENGTH TEST, CONTRACTOR shall supply complete information on the time, pressure, temperature, type failure, pictures of break if possible, and also retain all recording charts from pressure and temperature recorders. Use form FRM.31020.6 Test Section Failure Report to record all required information.

4.21.3. All data and charts shall be clearly marked with the date and time started, date and time completed, test medium, description of test section, Test CONTRACTOR name and Testing Subcontractor's name (if applicable), and signed by CONTRACTOR's Representative, and COMPANY REPRESENTATIVE,.

4.21.4. In the event of a leak, dent or failure at any stage of the strength testing process, the CONTRACTOR shall be responsible for locating and fixing the leak, dent or failure.

4.21.5. If the leak is the result of work the CONTRACTOR has performed, all costs for finding, fixing and retesting shall be borne by the CONTRACTOR.

4.21.6. COMPANY will settle any pipe failure as a result of defective pipe with the pipe mill, and the CONTRACTOR shall be reimbursed for extra work. The complete test shall be repeated following the repair of such leak or failure.

4.21.7. At a minimum the forms and documents in ES 31020 General Requirements for Pressure Testing will be required for each test. Each Test File Shall Have at a Minimum:

a. All Temperature Chart Recorders identifying test section, date, test recorder make, serial number, date of calibration with copy of calibration certificate, name of CONTRACTOR & Test Subcontractor (if applicable) signed by: CONTRACTOR, Test Subcontractor, and COMPANY REPRESENTATIVE.

b. All Pressure Chart Recorders identifying test section, date, test recorder make, serial number, date of calibration with copy of calibration

certificate, name of CONTRACTOR & Test Subcontractor (if applicable) signed by: CONTRACTOR, Test Subcontractor, and COMPANY REPRESENTATIVE

c. Provide certificates for Dead Weight Tester or Digital Gauges and for Fill Meter.

4.21.8. CONTRACTOR shall transmit the completed, signed/dated records, charts, reports, forms, calculations and other relevant documents to the COMPANY REPRESENTATIVE. The COMPANY REPRESENTATIVE will be responsible for placing these records in the Job Book.

4.22. TEST WATER DISPOSAL

4.22.1. Dewatering shall be in accordance with 4.18 of this procedure. Prior to starting the STRENGTH TEST, COMPANY shall approve the method of water disposal.

4.22.2. Disposal of the water shall comply with the requirements of federal, state, and local regulatory authorities.

4.22.3. Provided the water has not been treated with a biocide or other chemical, then the water may be discharged onto the right-of-way by the CONTRACTOR for dust control or when reseeding the right-of-way.

- Discharge on the right-of-way is an accepted practice in Texas by the TCEQ. Please contact COMPANY prior to discharging in Texas so that the proper state agencies can be notified.
- Discharge on the right-of-way is an accepted practice in New Mexico by the BLM or State. Please contact COMPANY prior to discharging in New Mexico so that the proper state agencies can be notified.

4.22.4. Water that cannot be discharged shall be contained in a suitable container and hauled to a disposal facility, as required by federal, state and local regulatory authorities.

APPENDIXES

Figure 1 - PRESSURE/TEMPERATURE RECORDER INSTALLATION

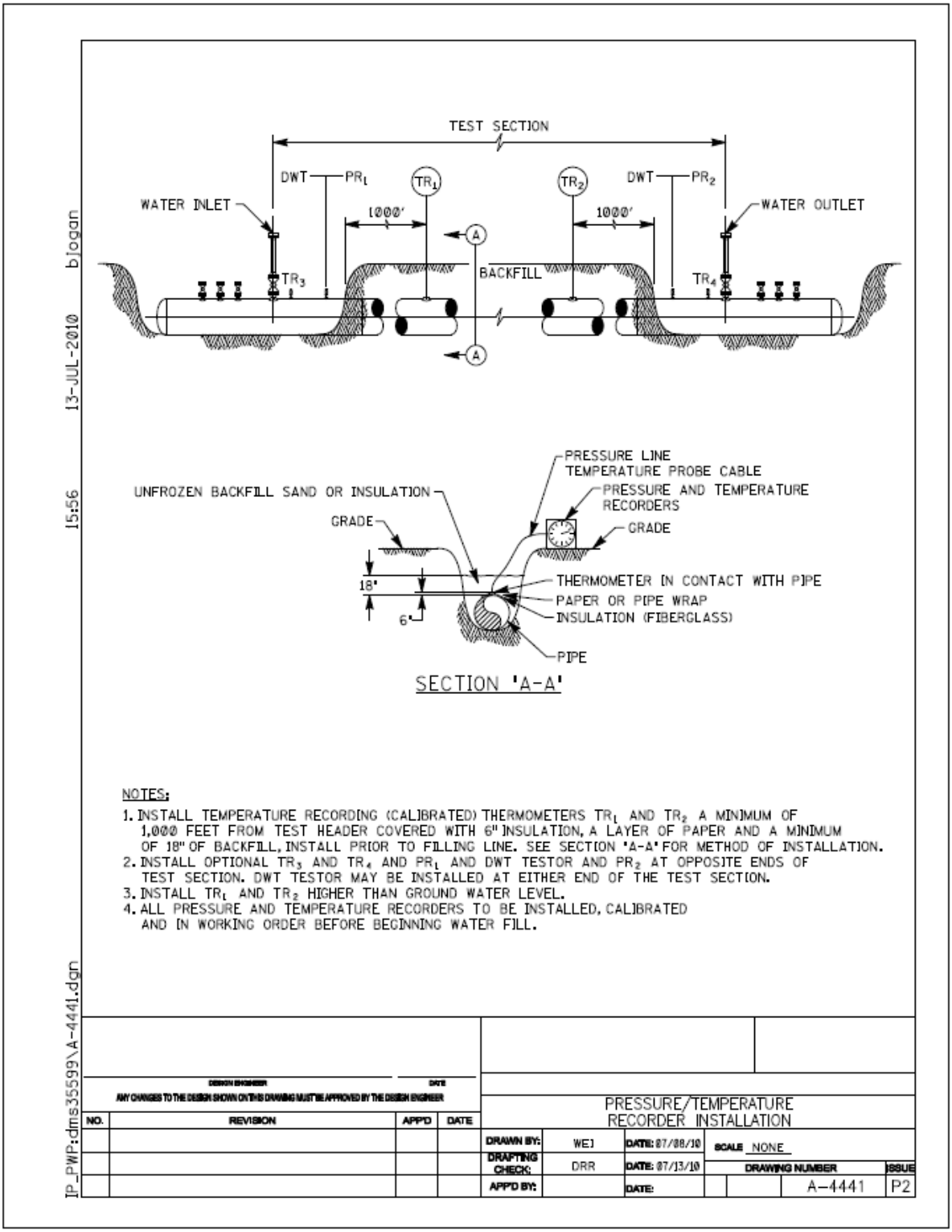


Figure 2 - AIR LOCK DRAWING

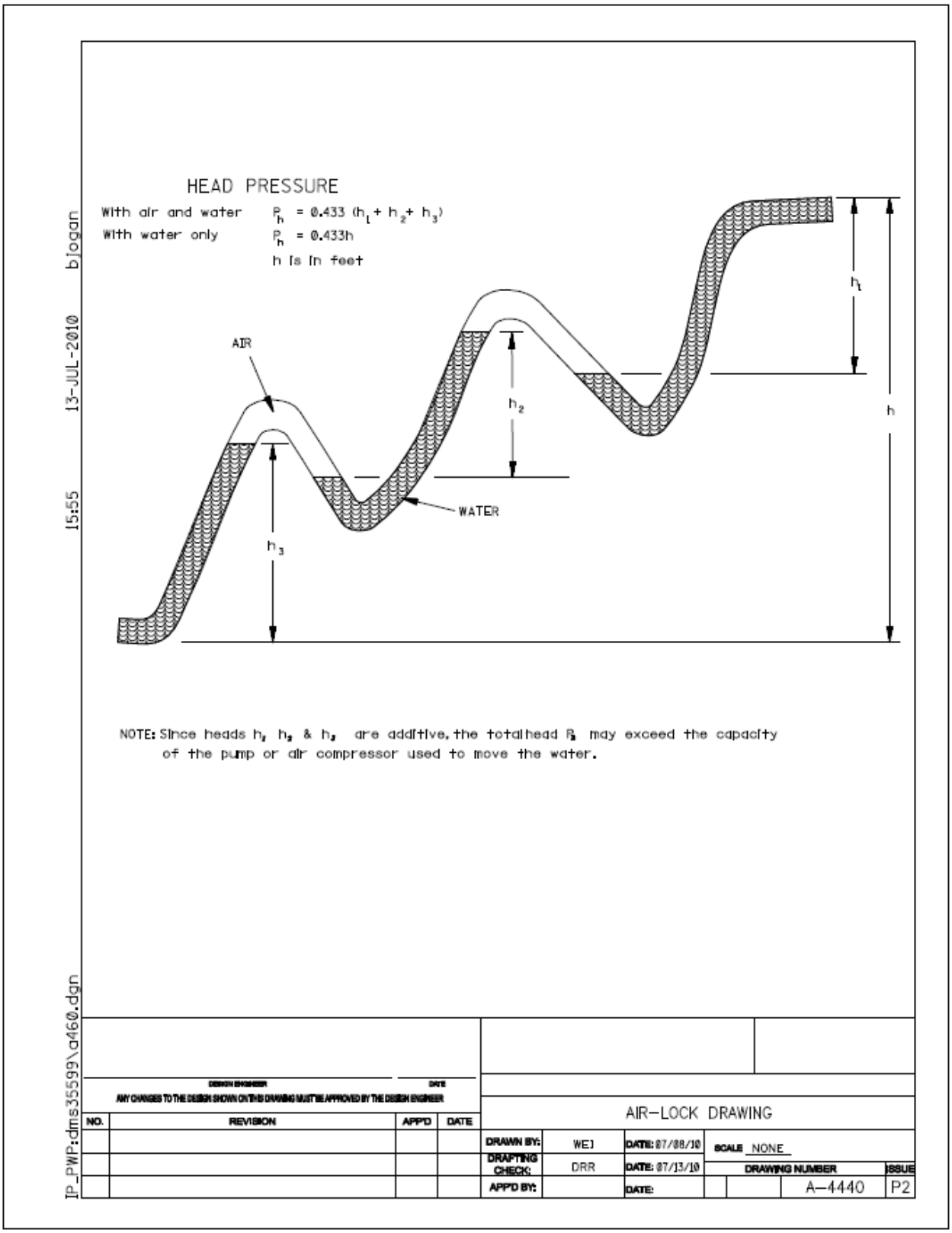
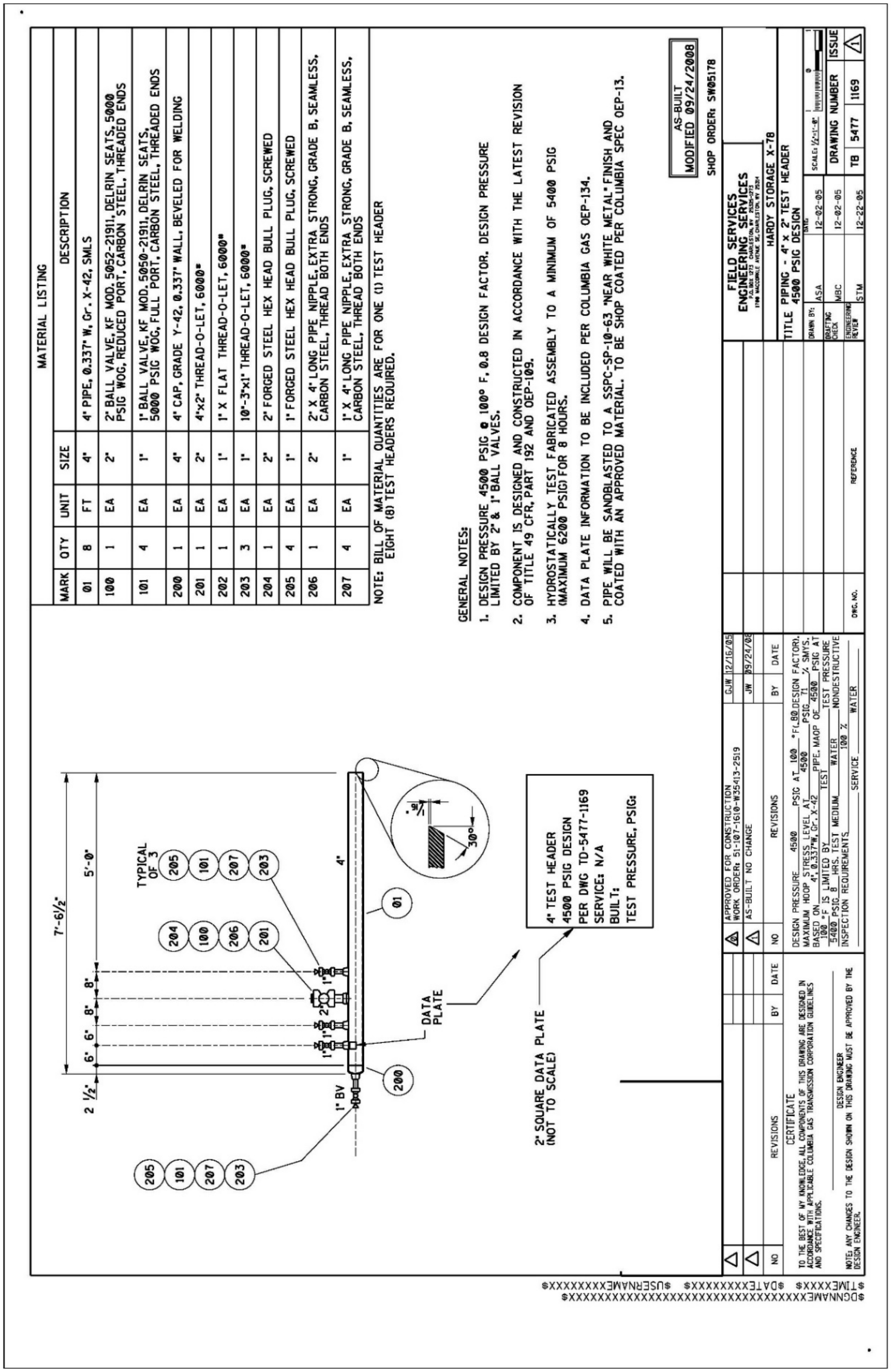
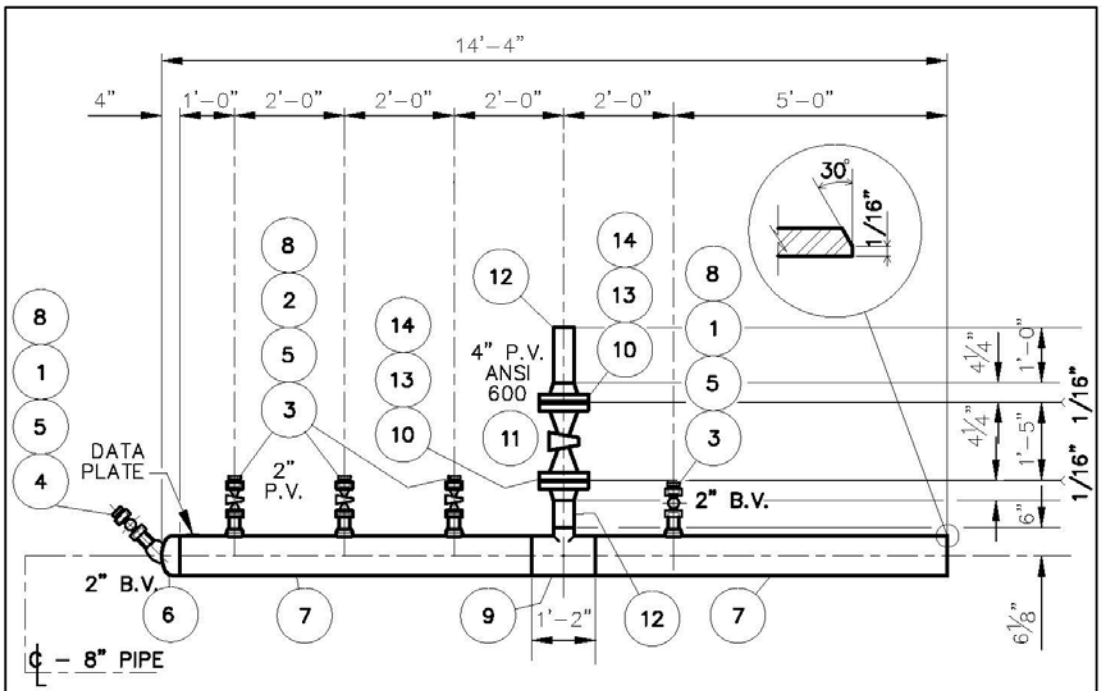


Figure 3 - PIPELINE STANDARD HYDROSTATIC TEST MANIFOLD DRAWINGS





8" TEST HDR.
1480 PSIG MAOP
1776 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH68A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
0	ISSUED FOR CONSTRUCTION	-	-
1	CONVERTED TO AUTOCAD	JW	6-21-16
2	-	-	-
3	-	-	-

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 8" TEST HEADER
ANSI 600

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

_____
DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN BY: WPR	DATE: 1-19-10	SCALE: NONE	
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-6-8A
APP'D FOR CONST.	-	-	ISSUE: 1

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MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2244 1480# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	2" x 8-10 W.O.L. XS
4	1	EA	2"	8"-6"x2" LATROLET, XS, WELD
5	5	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	8"	8" CAP 0.322" W. GR. B
7	16	FT.	8"	8" PIPE 0.322" W. GR. B, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	8"x8" x4"	TEE, REDUCING, 0.322" W. x 0.322" W. x 0.237" W. , GR. B
10	2	EA	4"	4" FLG. WN., ANSI 600, R.F., BORED FOR 0.237"W
11	1	EA	4"	4" PLUG VALVE, ANSI 600, NORDSTROM, FIG. 2245, R.F., CS, REGULAR PATTERN,
12	4	FT.	4"	4" PIPE 0.237"W., GR. B, SMLS
13	2	EA	4"	4" GASKET, NON ASBESTOS, ANSI 600
14	16	EA	7/8"x 6" LG.	7/8"x 6" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 4", ANSI 600)

NOTES:

1. DESIGN PRESSURE 1480 PSIG @ 100 F, 0.91 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 4" ANSI 600 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 1776 PSIG (1.2 x DESIGN PRESSURE OF 1480 PSIG) AND MAXIMUM PRESSURE OF 2874 PSIG (110% SMYS OF 2613 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
0	ISSUED FOR CONSTRUCTION	-	-
1	CONVERTED TO AUTOCAD	JW	6-21-16
2	-	-	-
3	-	-	-

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
_____
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 8" TEST HEADER, ANSI 600
BILL OF MATERIAL AND NOTES

DRAWN	BY: WPR	DATE: 1-19-09	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-6-8B
APP'D FOR CONST.	-	-	ISSUE: 1

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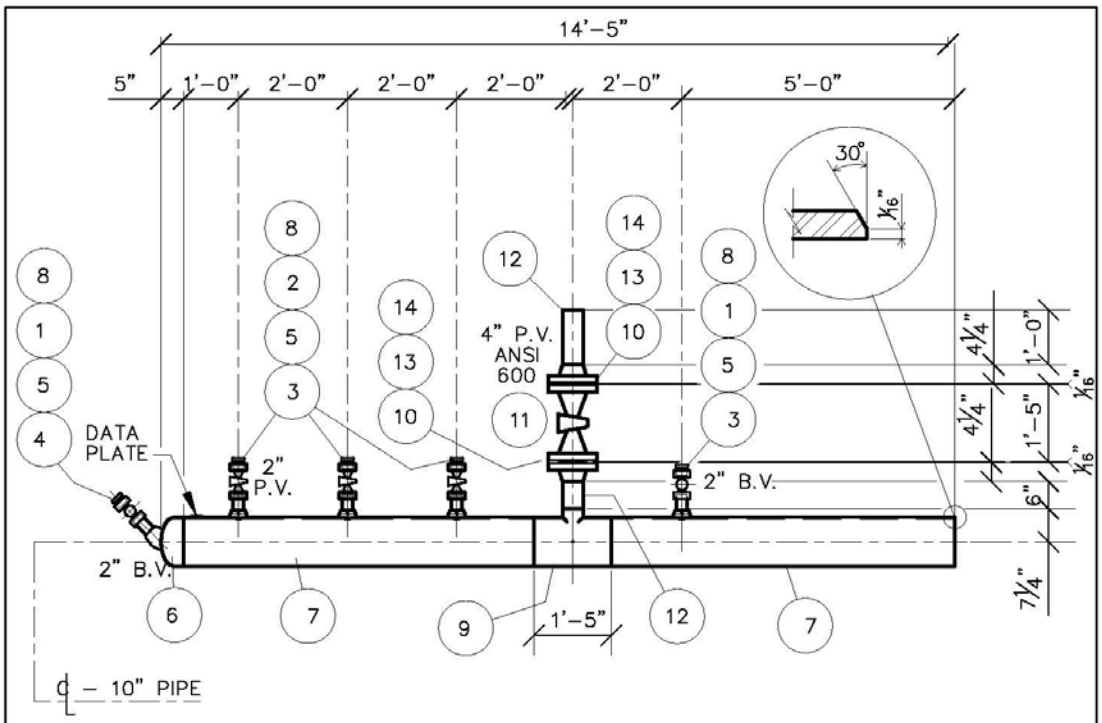

10" TEST HDR.
1480 PSIG MAOP
1776 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH610A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
2	–	–	–
3	–	–	–
4	–	–	–

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING – 10" TEST HEADER
ANSI 600

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN	BY: WPR	DATE: 1/9/10	SCALE: NONE
APP'D FOR CONST.	–	–	DRAWING NUMBER: MP-TH-6-10A
APP'D FOR CONST.	–	–	ISSUE: 1

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6/21/2016 3:20:26 PM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	2" x 8-10 W.O.L. XS
4	1	EA	2"	12"-10"x2" LATROLET, XS, WELD
5	4	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	10"	10" CAP 0.365" W. GR. B
7	14	FT.	10"	10" PIPE 0.365" W. GR. B, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	10"x10" x4"	TEE, REDUCING, 0.365" W. x 0.365" W. x 0.237" W. , GR. B
10	2	EA	4"	4" FLG. WN., ANSI 600, R.F., BORED FOR 0.237"W
11	1	EA	4"	4" PLUG VALVE, ANSI 600, NORDSTROM, FIG. 2245, R.F., CS, REGULAR PATTERN,
12	4	FT.	4"	4" PIPE 0.237"W., GR. B, SMLS
13	2	EA	4"	4" GASKET, NON ASBESTOS, ANSI 600
14	16	EA	7/8"x 6" LG.	7/8"x 6" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 4", ANSI 600)

NOTES:

1. DESIGN PRESSURE 1480 PSIG @ 100 F, 0.9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 4" ANSI 600 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 1776 PSIG (1.2 x DESIGN PRESSURE OF 1480 PSIG) AND MAXIMUM PRESSURE OF 2614 PSIG (110% SMYS OF 2377 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
0	-	-	-
0	-	-	-
0	-	-	-

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 10" TEST HEADER, ANSI 600
BOM AND NOTES

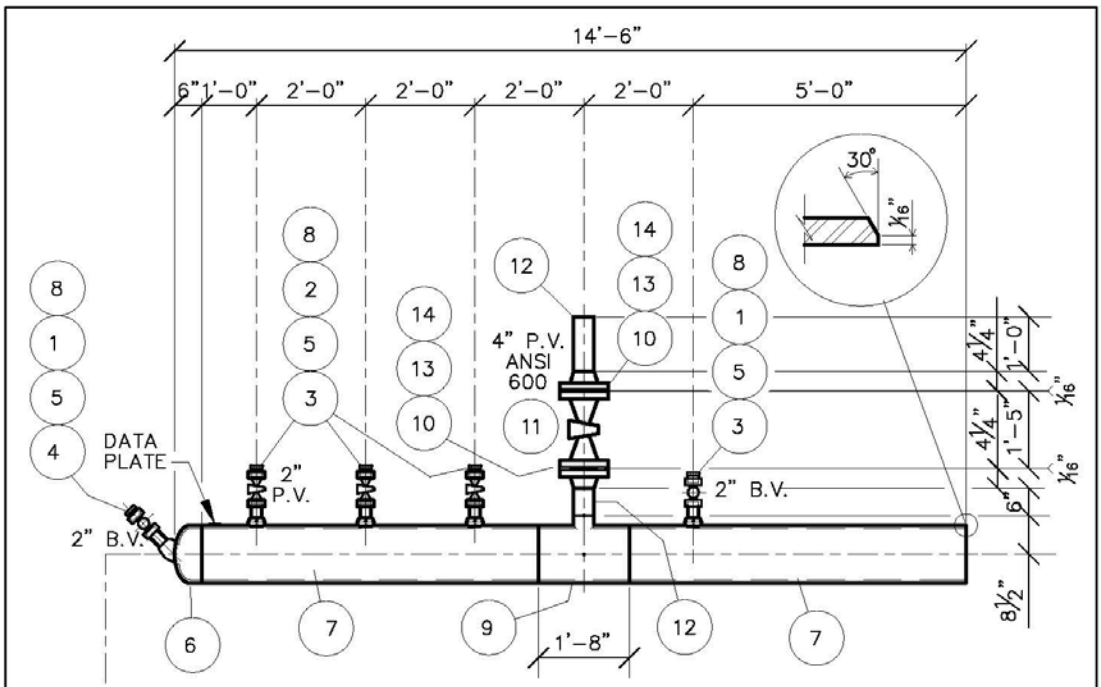
CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN BY: WPR	DATE: 1/19/10	SCALE: NONE	
APP'D FOR CONST. -	-	DRAWING NUMBER	ISSUE
APP'D FOR CONST. -	-	MP-TH-6-10B	1

M:\ADEPT_SCAN\TRUCKER\STANDARDS INITIATIVE\STANDARDS CD\06-PIPELINE\06.04-TEST HEADER\DWG\MP-TH-6-10B.DWG
6/21/2016 3:25:07 PM RUCKER \ TOBY L.



21/2" SQUARE

12" TEST HDR.
1480 PSIG MAOP
1776 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH612A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
2	–	–	–
3	–	–	–
4	–	–	–

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING – 12" TEST HEADER
ANSI 600

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN	BY: WPR	DATE: 02/12/10	SCALE: NONE
APP'D FOR CONST.	–	–	DRAWING NUMBER: MP-TH-6-12A
APP'D FOR CONST.	–	–	ISSUE: 1

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6/21/2016 3:31:01 PM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	18"x12"-2" W.O.L. XS
4	1	EA	2"	12"-10"x2" LATROLET, XS, WELD
5	4	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	12"	12" CAP 0.375" W. GR. Y-42
7	14	FT.	12"	12" PIPE 0.375" W. GR. X-42, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	12"x12" x4"	TEE, REDUCING, 0.375" W. x 0.375" W. x 0.237" W. , GR. Y-42
10	2	EA	4"	4" FLG. WN., ANSI 600, R.F., BORED FOR 0.237"W
11	1	EA	4"	4" PLUG VALVE, ANSI 600, NORDSTROM, FIG. 2245, R.F., CS, REGULAR PATTERN,
12	4	FT.	4"	4" PIPE 0.237"W., GR. B, SMLS
13	2	EA	4"	4" GASKET, NON ASBESTOS, ANSI 600
14	16	EA	7/8"x 6" LG.	7/8"x 6" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 4", ANSI 600)

NOTES:

1. DESIGN PRESSURE 1480 PSIG @ 100 F, 0.9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 4" ANSI 600 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 1776 PSIG (1.2 x DESIGN PRESSURE OF 1480 PSIG) AND MAXIMUM PRESSURE OF 2717 PSIG (110% SMYS OF 2470 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
0	-	-	-
0	-	-	-
0	-	-	-

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 12" TEST HEADER, ANSI 600
BOM & NOTES

DRAWN	BY: WPR	DATE: 02/16/10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-YH-6-12B
APP'D FOR CONST.	-	-	ISSUE: 1

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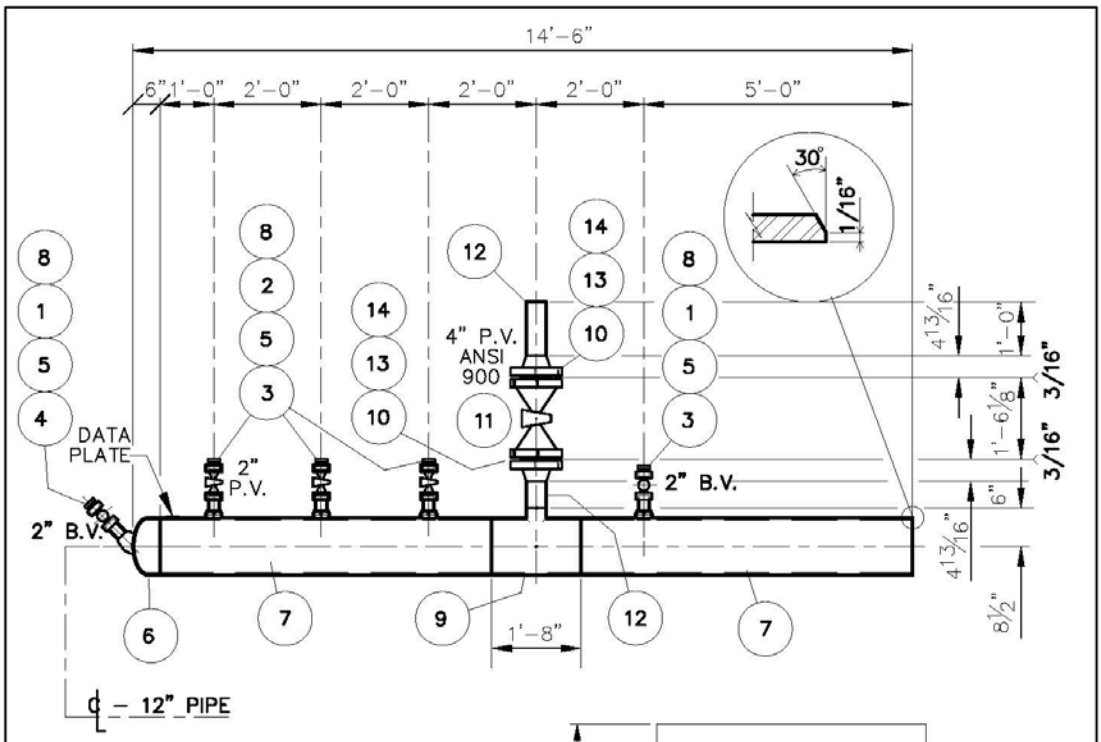
6/21/2016 3:35:36 PM RUCKER \ TOBY L.



2 1/2" SQUARE

12" TEST HDR.
2220 PSIG MAOP
2664 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH912A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
0	ISSUED FOR CONSTRUCTION	-	-
1	CONVERTED TO AUTOCAD	JW	6-21-16
2	-	-	-
3	-	-	-

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 12" TEST HEADER
ANSI 900

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

_____
DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN	BY: WPR	DATE: 2-17-10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-9-12A
APP'D FOR CONST.	-	-	ISSUE: 1

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6/21/2016 3:55:13 PM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	18"x12"-2" W.O.L. XS
4	1	EA	2"	12"-10"x2" LATROLET, XS, WELD
5	4	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	12"	12" CAP 0.500" W. GR. Y-42
7	14	FT.	12"	12" PIPE 0.500" W. GR. X-42, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	12"x12" x4"	TEE, REDUCING, 0.500" W. x 0.500" W. x 0.337" W. , GR. Y-42
10	2	EA	4"	4" FLG. WN., ANSI 900, RTJ. BORED FOR 0.337" W
11	1	EA	4"	4" PLUG VALVE, ANSI 900, NORDSTROM, FIG. 2349, RTJ., CS, REGULAR PATTERN,
12	4	FT.	4"	4" PIPE 0.337"W., GR. B, SMLS
13	2	EA	4"	4" GASKET, RING, OVAL, R-37 ANSI 900
14	16	EA	1 1/8"x 7" LG.	7/8"x 6" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 4", ANSI 900)

NOTES:

DESIGN PRESSURE 2220 PSIG @ 100 F, 0.9 DESIGN FACTOR.
DESIGN PRESSURE LIMITED BY 4" ANSI 900 VALVE.

COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.

HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 2664 PSIG (1.2 x DESIGN PRESSURE OF 2220 PSIG) AND MAXIMUM PRESSURE OF 3623 PSIG (110% SMYS OF 3294 PSIG) FOR 8 HOURS PER OEP 134 IV J.

DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
DO NOT TEST WITH VALVES INSTALLED.

PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTOCAD	JW	6-22-16
2	-	-	-
3	-	-	-
4	-	-	-

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 12" TEST HEADER, ANSI 900
BILL OF MATERIAL AND NOTES

DRAWN	BY: WPR	DATE: 2-17-10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-9-12B
APP'D FOR CONST.	-	-	ISSUE: 1

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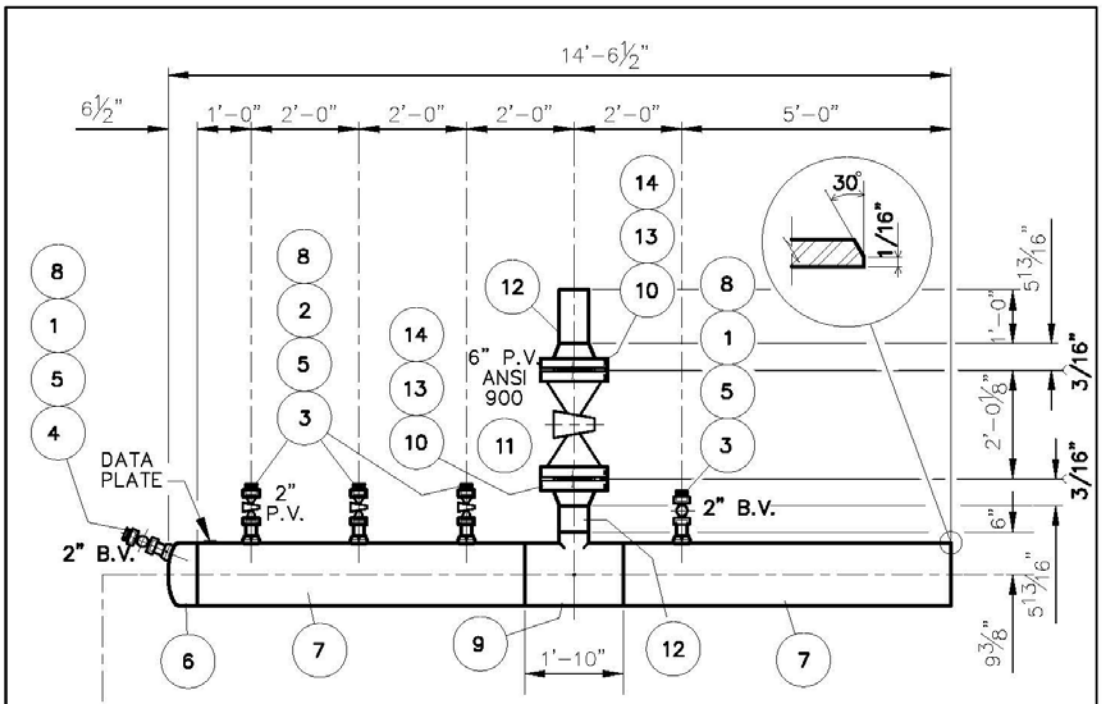
6/22/2016 7:58:50 AM RUCKER \ TOBY L.



2 1/2" SQUARE

14" TEST HDR.
2220 PSIG MAOP
2664 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH914A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTOCAD	JW	6-22-16
0	–	–	–
0	–	–	–
0	–	–	–

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING – 14" TEST HEADER
ANSI 900

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN	BY: WPR	DATE: 2-18-10	SCALE: NONE
APP'D FOR CONST.	–	–	DRAWING NUMBER: MP-TH-9-14A
APP'D FOR CONST.	–	–	ISSUE: 1

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6/22/2016 8:00:14 AM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	18"x12"-2" W.O.L. XS
4	1	EA	2"	16"-8", FLAT, FLEXOLET, XS
5	4	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	14"	14" CAP 0.500" W. GR. Y-42
7	14	FT.	14"	14" PIPE 0.500" W. GR. X-42, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	14"x14" x6"	TEE, REDUCING, 0.500" W. x 0.500" W. x 0.432" W. , GR. Y-42
10	2	EA	6"	6" FLG. WN., ANSI 900, RTJ. BORED FOR 0.432" W.
11	1	EA	6"	6" PLUG VALVE, ANSI 900, NORDSTROM, FIG. 2349, RTJ., CS, REGULAR PATTERN,
12	4	FT.	6"	6" PIPE 0.432"W., GR. B, SMLS
13	2	EA	6"	6" GASKET, RING, OVAL, R-45 ANSI 900
14	24	EA	1"x 7" LG.	1 1/8"x 8" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 900)

NOTES:

1. DESIGN PRESSURE 2220 PSIG @ 100 F, 0.9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 900 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 2664 PSIG (1.2 x DESIGN PRESSURE OF 2220 PSIG) AND MAXIMUM PRESSURE OF 3300 PSIG (110% SMYS OF 3000 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTOCAD	JW	6-22-16
2	-	-	-
3	-	-	-
4	-	-	-

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
_____
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 14" TEST HEADER, ANSI 900
BILL OF MATERIAL AND NOTES

DRAWN	BY: WPR	DATE: 2-18-10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-9-14B
APP'D FOR CONST.	-	-	ISSUE: 1

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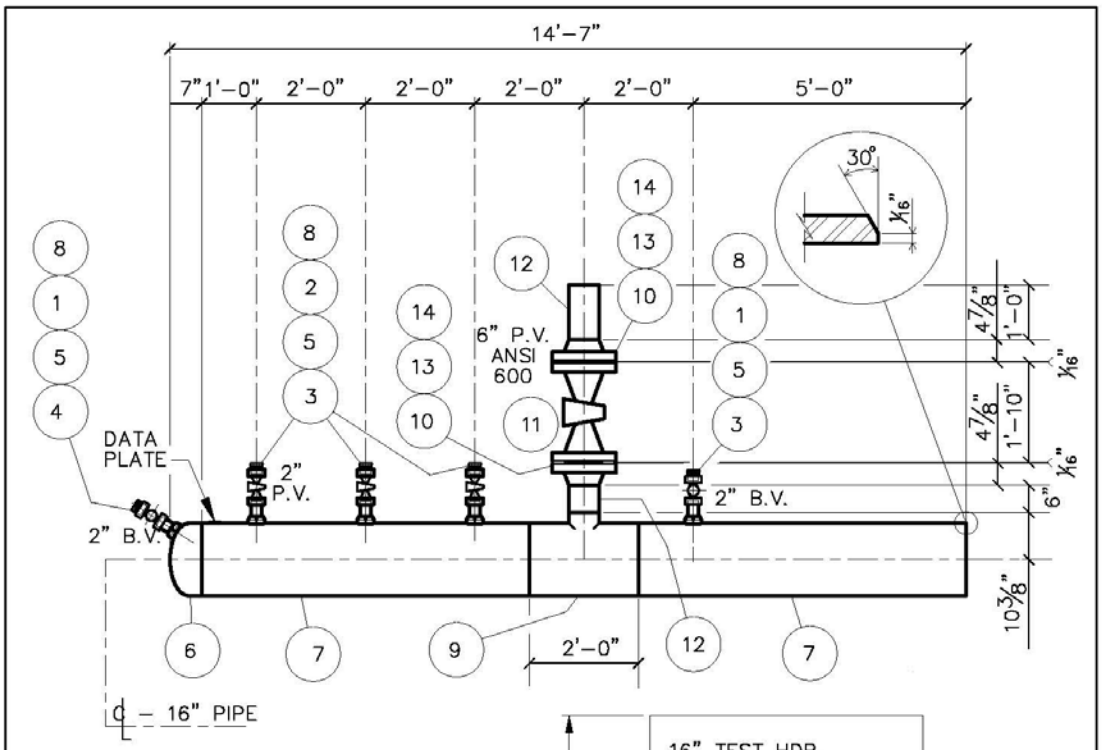
6/22/2016 8:26:56 AM RUCKER \ TOBY L.



21/2" SQUARE

16" TEST HDR.
1480 PSIG MAOP
1776 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH616A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
2	-	-	-
3	-	-	-
4	-	-	-

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 16" TEST HEADER
ANSI 600

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN BY: WPR	DATE: 02/12/10	SCALE: NONE
APP'D FOR CONST. -	-	DRAWING NUMBER: MP-YH-6-16A
APP'D FOR CONST. -	-	ISSUE: 1

M:\ADEPT_SCAN\TRUCKER\STANDARDS INITIATIVE\STANDARDS CD\06-PIPELINE\06.04-TEST HEADER\DWG\MP-TH-6-16A.DWG
6/21/2016 3:44:36 PM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	18"x12"-2" W.O.L. XS
4	1	EA	2"	16"-8", FLAT, FLEXOLET, XS
5	4	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	16"	16" CAP 0.375" W. GR. Y-42
7	12	FT.	16"	16" PIPE 0.375" W. GR. Y-42, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	16"x16" x6"	TEE, REDUCING, 0.375" W. x 0.375" W. x 0.280" W. , GR. Y-42
10	2	EA	6"	6" FLG. WN., ANSI 600, R.F., BORED FOR 0.280" W.
11	1	EA	6"	6" PLUG VALVE, ANSI 600, NORDSTROM, FIG. 2245, R.F., CS, REGULAR PATTERN,
12	4	FT.	6"	6" PIPE 0.280" W., GR. B, SMLS
13	2	EA	6"	6" GASKET, NON ASBESTOS, ANSI 600
14	16	EA	1"x 7" LG.	1"x 7" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 600)

NOTES:

1. DESIGN PRESSURE 1480 PSIG @ 100 F, 0.9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 600 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 1776 PSIG (1.2 x DESIGN PRESSURE OF 1480 PSIG) AND MAXIMUM PRESSURE OF 2165 PSIG (110% SMYS OF 1968 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
0	-	-	-
0	-	-	-
0	-	-	-

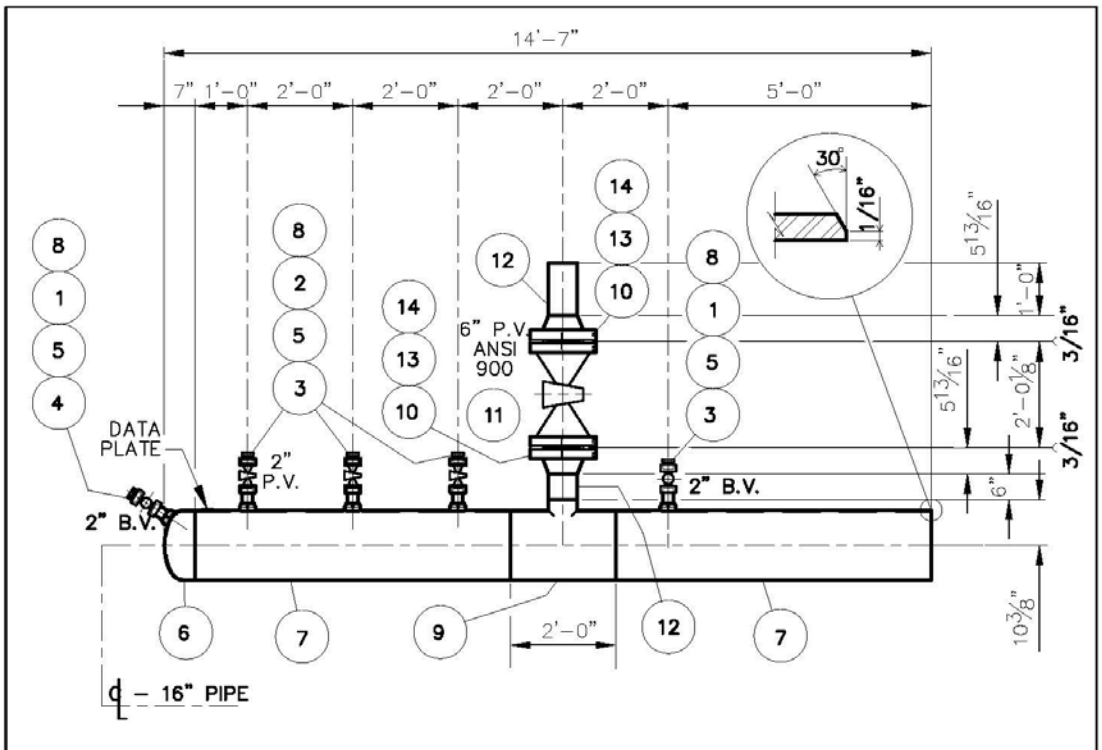
CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 16" TEST HEADER
ANSI 600, BOM & NOTES

DRAWN	BY: WPR	DATE: 02/16/10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-6-16B
APP'D FOR CONST.	-	-	ISSUE: 1

M:\ADEPT_SCAN\TRUCKER\STANDARDS INITIATIVE\STANDARDS CD\06-PIPELINE\06.04-TEST HEADER\DWG\MP-TH-6-16B.DWG
6/21/2016 3:50:54 PM RUCKER \ TOBY L.



21/2" SQUARE

16" TEST HDR.
2220 PSIG MAOP
2264 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH916A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
0	ISSUED FOR CONSTRUCTION	–	–
1	CONVERTED TO AUTOCAD	JW	6-22-16
2	–	–	–
3	–	–	–

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING – 16" TEST HEADER
ANSI 900

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN	BY: WPR	DATE: 2-17-10	SCALE: NONE
APP'D FOR CONST.	–	–	DRAWING NUMBER: MP-TH-9-16A
APP'D FOR CONST.	–	–	ISSUE: 1

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6/22/2016 8:40:04 AM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	18"x12"-2" W.O.L. XS
4	1	EA	2"	16"-8", FLAT, FLEXOLET, XS
5	4	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	16"	16" CAP 0.500" W. GR. Y-42
7	12	FT.	16"	16" PIPE 0.500" W. GR. Y-42, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	16"x16" x6"	TEE, REDUCING, 0.500" W. x 0.500" W. x 0.432" W. , GR. Y-42
10	2	EA	6"	6" FLG. WN., ANSI 900, RTJ. BORED FOR 0.432"W
11	1	EA	6"	6" PLUG VALVE, ANSI 900, NORDSTROM, FIG. 2349, RTJ., CS, REGULAR PATTERN,
12	4	FT.	6"	6" PIPE 0.432"W., GR. B, SMLS
13	2	EA	6"	6" GASKET, RING, OVAL, R-45 ANSI 900
14	24	EA	1 1/8"x 8" LG.	1 1/8"x 8" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 900)

NOTES:

1. DESIGN PRESSURE 2220 PSIG @ 100 F, 0.9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 600 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 2625 PSIG (1.2 x DESIGN PRESSURE OF 2220 PSIG) AND MAXIMUM PRESSURE OF 2887 PSIG (110% SMYS OF 2625 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
0	ISSUED FOR CONSTRUCTION	-	-
1	CONVERTED TO AUTOCAD	JW	6-22-16
2	-	-	-
3	-	-	-

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
_____
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING – 16" TEST HEADER, ANSI 900
BILL OF MATERIAL AND NOTES

DRAWN	BY: WPR	DATE: 2-17-10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-9-16B
APP'D FOR CONST.	-	-	ISSUE: 1

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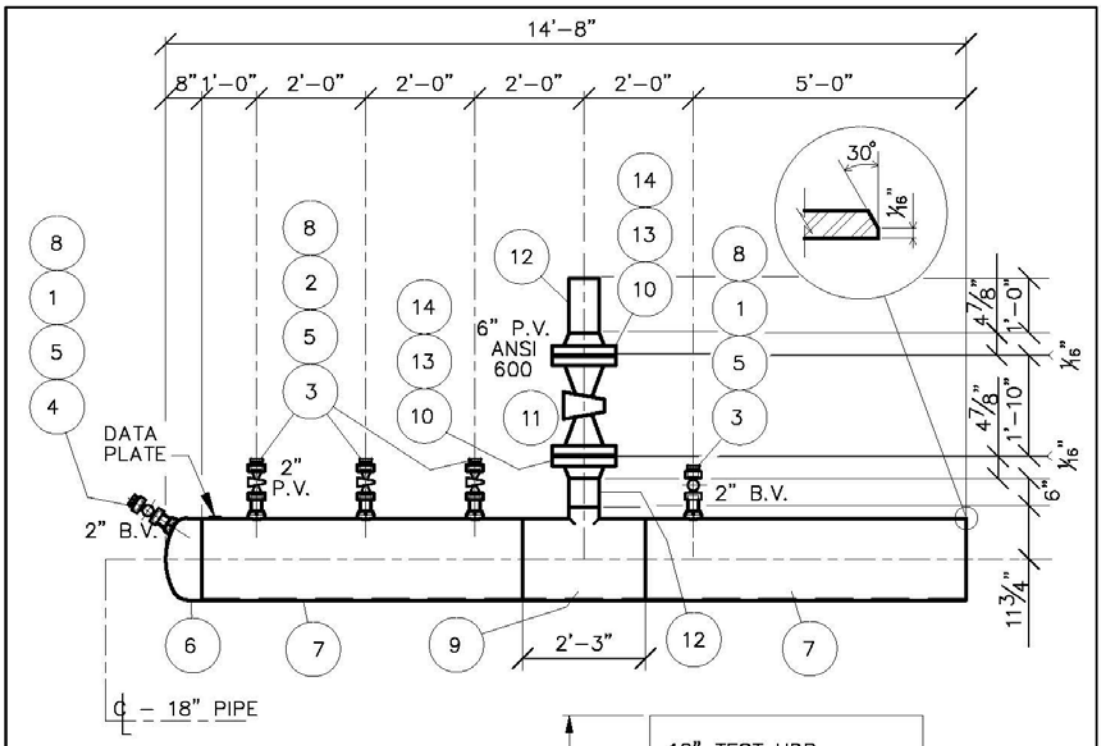
6/22/2016 8:55:14 AM RUCKER \ TOBY L.



2½" SQUARE

18" TEST HDR.
1480 PSIG MAOP
1776 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH618A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
0	–	–	–
0	–	–	–
0	–	–	–

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING – 18" TEST HEADER
ANSI 600

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN	BY: WPR	DATE: 02/17/10	SCALE: NONE
APP'D FOR CONST.	–	–	DRAWING NUMBER: MP-TH-6-18A
APP'D FOR CONST.	–	–	ISSUE: 1

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6/21/2016 3:57:12 PM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	18"x12"-2" W.O.L. XS
4	1	EA	2"	36"-18", FLAT, FLEXOLET, XS
5	4	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	18"	18" CAP 0.375" W. GR. Y-42
7	12	FT.	18"	18" PIPE 0.375" W. GR. Y-42, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	18"x18" x6"	TEE, REDUCING, 0.375" W. x 0.375" W. x 0.280" W. , GR. Y-42
10	2	EA	6"	6" FLG. WN., ANSI 600, R.F., BORED FOR 0.280" W.
11	1	EA	6"	6" PLUG VALVE, ANSI 600, NORDSTROM, FIG. 2245, R.F., CS, REGULAR PATTERN,
12	4	FT.	6"	6" PIPE 0.280" W., GR. B, SMLS
13	2	EA	6"	6" GASKET, NON ASBESTOS, ANSI 600
14	16	EA	1"x 7" LG.	1"x 7" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 600)

NOTES:

1. DESIGN PRESSURE 1480 PSIG @ 100 F, 0.9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 600 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 1776 PSIG (1.2 x DESIGN PRESSURE OF 1480 PSIG) AND MAXIMUM PRESSURE OF 1925 PSIG (110% SMYS OF 1750 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
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0	-	-	-
0	-	-	-

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
_____
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 18" TEST HEADER
ANSI 600, BOM & NOTES

DRAWN	BY: WPR	DATE: 02/17/10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-6-18B
APP'D FOR CONST.	-	-	ISSUE: 1

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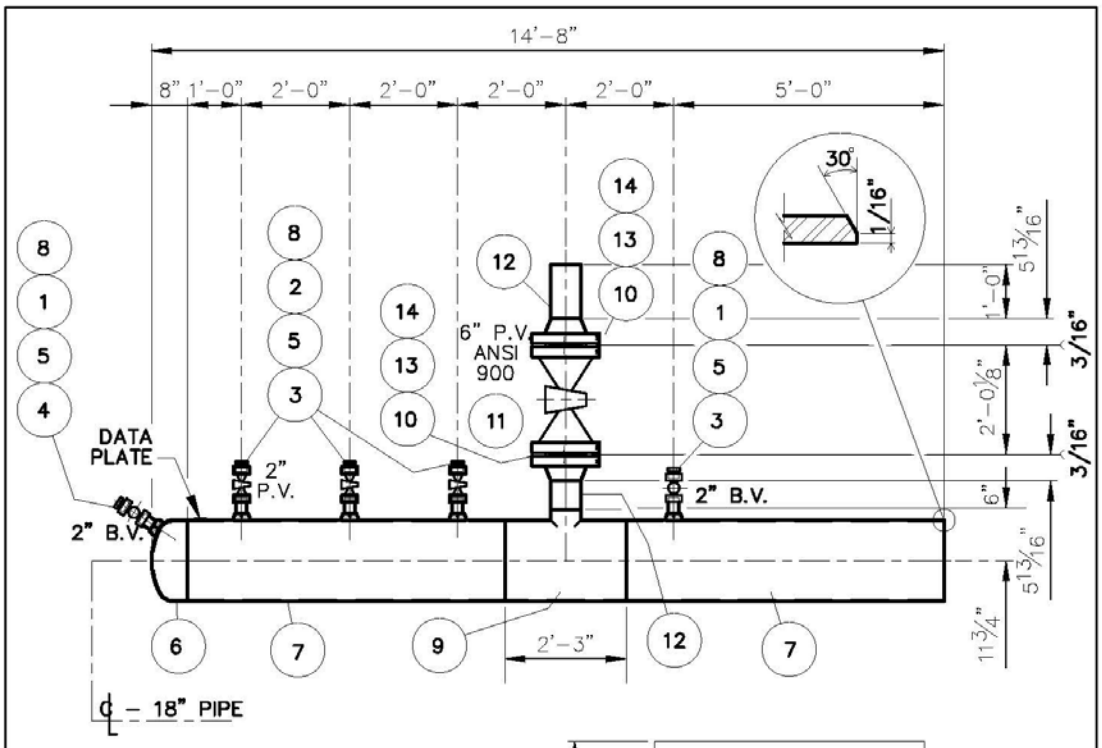
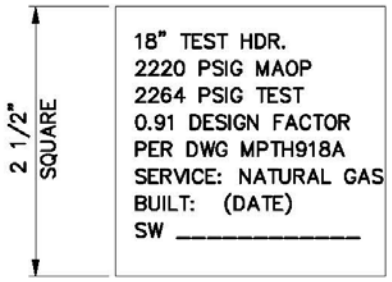
6/22/2016 8:58:38 AM RUCKER \ TOBY L.





NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
0	ISSUED FOR CONSTRUCTION	-	-
1	CONVERTED TO AUTOCAD	JW	6-22-16
2	-	-	-
3	-	-	-

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 18" TEST HEADER
ANSI 900

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

	BY	DATE
DRAWN	WPR	2-17-10
APP'D FOR CONST.	-	-
APP'D FOR CONST.	-	-

SCALE: NONE

DRAWING NUMBER	ISSUE
MP-TH-9-18A	1

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6/22/2016 9:13:24 AM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	18"x12"-2" W.O.L. XS
4	1	EA	2"	36"-18", FLAT, FLEXOLET, XS
5	4	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	18"	18" CAP 0.500" W. GR. Y-52
7	12	FT.	18"	18" PIPE 0.500" W. GR. Y-52, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	18"x18" x6"	TEE, REDUCING, 0.500" W. x 0.500" W. x 0.432" W. , GR. Y-52
10	2	EA	6"	6" FLG. WN., ANSI 900, RTJ. BORED FOR 0.432" W.
11	1	EA	6"	6" PLUG VALVE, ANSI 900, NORDSTROM, FIG. 2349, RTJ., CS, REGULAR PATTERN,
12	4	FT.	6"	6" PIPE 0.432"W., GR. B, SMLS
13	2	EA	6"	6" GASKET, RING, OVAL, R-45 ANSI 900
14	24	EA	1 1/8"x 8" LG.	1 1/8"x 8" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 900)

NOTES:

1. DESIGN PRESSURE 2220 PSIG @ 100 F, 0.9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 900 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 2664 PSIG (1.2 x DESIGN PRESSURE OF 2220 PSIG) AND MAXIMUM PRESSURE OF 3177 PSIG (110% SMYS OF 2888 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
6	ISSUED FOR CONSTRUCTION	-	-
5	CONVERTED TO AUTOCAD	JW	6-22-16
4	-	-	-
3	-	-	-

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
_____
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 18" TEST HEADER, ANSI 900
BILL OF MATERIAL AND NOTES

DRAWN	BY: WPR	DATE: 2-17-10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-9-18B
APP'D FOR CONST.	-	-	ISSUE: 1

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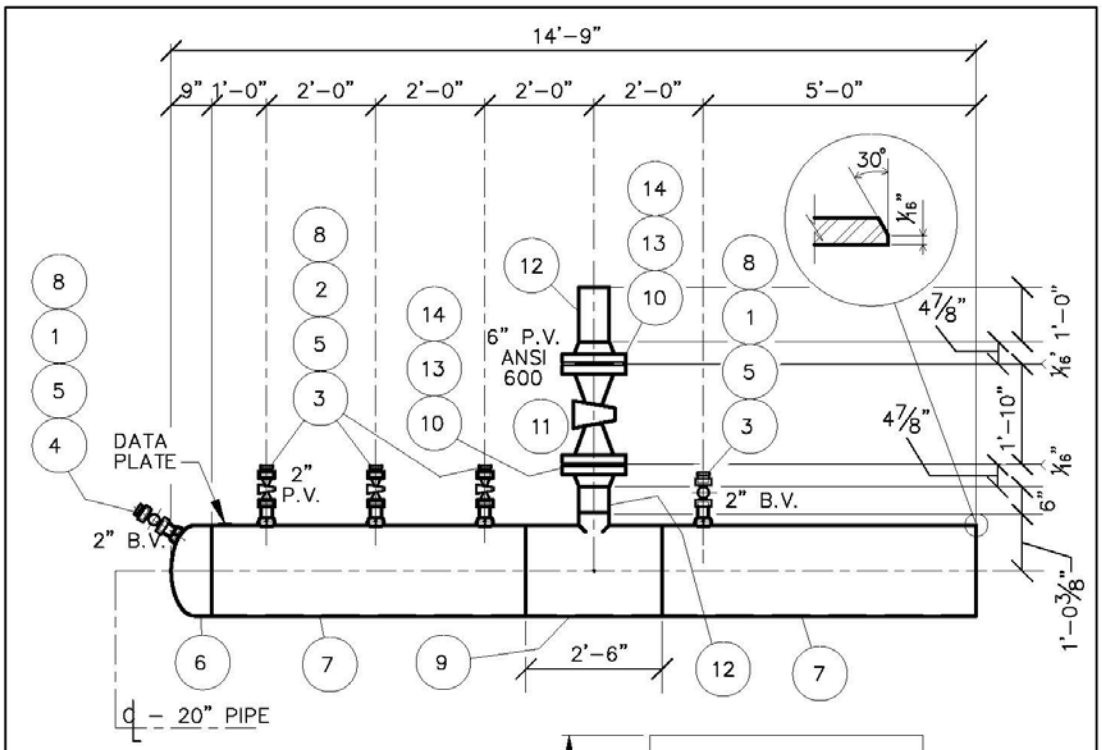
6/22/2016 9:19:34 AM RUCKER \ TOBY L.



21/2" SQUARE

20" TEST HDR.
1480 PSIG MAOP
1776 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH620A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
2	-	-	-
3	-	-	-
4	-	-	-

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 20" TEST HEADER
ANSI 600

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN	BY: WPR	DATE: 02/12/10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-6-20A
APP'D FOR CONST.	-	-	ISSUE: 1

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6/22/2016 9:08:13 AM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	36"x20"-2" W.O.L. XS
4	1	EA	2"	36"-18", FLAT, FLEXOLET, XS
5	5	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	20"	20" CAP 0.375" W. GR. Y-52
7	12	FT.	20"	20" PIPE 0.375" W. GR. X-52, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	20"x20" x6"	TEE, REDUCING, 0.375" W. x 0.375" W. x 0.280" W. , GR. Y-52
10	2	EA	6"	6" FLG. WN., ANSI 600, R.F., BORED FOR 0.280" W.
11	1	EA	6"	6" PLUG VALVE, ANSI 600, NORDSTROM, FIG. 2245, R.F., CS, REGULAR PATTERN,
12	4	FT.	6"	6" PIPE 0.280" W., GR. B, SMLS
13	2	EA	6"	6" GASKET, NON ASBESTOS, ANSI 600
14	24	EA	1"x 7" LG.	1"x 7" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 600)

NOTES:

1. DESIGN PRESSURE 1480 PSIG @ 100 F, 0.9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 600 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 1776 PSIG (1.2 x DESIGN PRESSURE OF 1480 PSIG) AND MAXIMUM PRESSURE OF 2145 PSIG (110% SMYS OF 1950 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
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CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

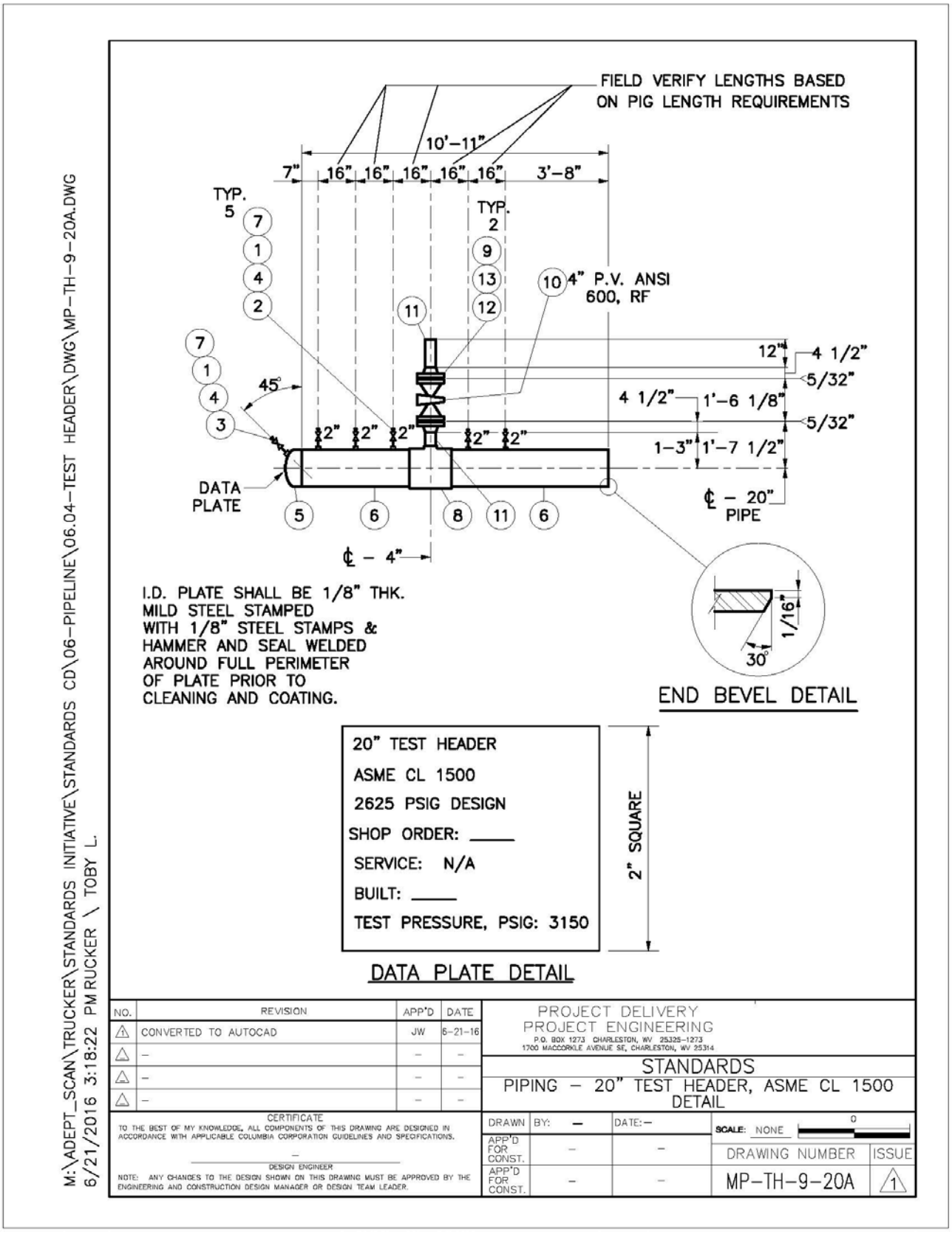
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 20" TEST HEADER, ANSI 600
BOM & NOTES

DRAWN	BY: WPR	DATE: 02/16/10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER / ISSUE
APP'D FOR CONST.	-	-	MP-TH-6-20B / 1

M:\ADEPT_SCAN\TRUCKER\STANDARDS INITIATIVE\STANDARDS CD\06-PIPELINE\06.04-TEST HEADER\DWG\MP-TH-6-20B.DWG
6/22/2016 9:12:29 AM RUCKER \ TOBY L.


FIELD VERIFY LENGTHS BASED ON PIG LENGTH REQUIREMENTS
10'-11"
7" 16" 16" 16" 16" 16" 3'-8"
TYP. 5
TYP. 2
10 4" P.V. ANSI 600, RF
45°
12" 4 1/2"
5/32"
4 1/2" 1'-6 1/8"
5/32"
2" 2" 2" 2" 2"
1-3" 1'-7 1/2"
DATA PLATE
℄ - 20" PIPE
℄ - 4"
I.D. PLATE SHALL BE 1/8" THK. MILD STEEL STAMPED WITH 1/8" STEEL STAMPS & HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING.
1/16"
30°
END BEVEL DETAIL
20" TEST HEADER
ASME CL 1500
2625 PSIG DESIGN
SHOP ORDER: ____
SERVICE: N/A
BUILT: ____
TEST PRESSURE, PSIG: 3150
2" SQUARE
DATA PLATE DETAIL
NO. REVISION APP'D DATE
1 CONVERTED TO AUTOCAD JW 6-21-16
PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314
STANDARDS
PIPING - 20" TEST HEADER, ASME CL 1500 DETAIL
CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.
DRAWN BY: - DATE: -
APP'D FOR CONST. - -
APP'D FOR CONST. - -
SCALE: NONE
DRAWING NUMBER MP-TH-9-20A
ISSUE 1
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6/21/2016 3:18:22 PM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	S.S. NO.	SIZE	DESCRIPTION
1	6	EA	14-97	2"	2" BALL VALVE, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	5	EA	17-92403	2"	2" x 36-12 W.O.L. XS
3	1	EA	17-92407		2" x FLAT W.O.L. XS
4	6	EA	24-09241	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
5	1	EA	18-07311	20"	20" CAP 0.500" W. GR. Y-65
6	12	FT.	07-36	20"	20" PIPE 0.500" W. GR. X-65, ERW
7	6	EA	26-58445	2"	2" PLUG XH HD
8	1	EA	17-67202	4"x20"	4"x20" FULL ENCIRCLEMENT SADDLE, GR. B, .250" MINIMUM WALL THICKNESS., 7.65" MINIMUM WIDTH.
9	2	EA	19-70660	4"	4" FLG. WN., ASME CL 1500, RF. BORED FOR .237"W
10	1	EA	12-44211	4"	4" PLUG VALVE, ASME CL 1500, NORDSTROM, FIG. 2249, RF., CS, REGULAR PATTERN.
11	4	FT.	07-532030	4"	4" PIPE 0.237" W., GR. B, SMLS
12	2	EA	40-86075	4"	4" FLEXATALIC, CGI, GASKET, ASME CL 1500
13	16	EA	28-46655	1 1/4"x 8 3/4" LG.	1 1/4" x 8 3/4" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 HEX NUTS EA. (TAG: 4", ASME CL 1500)

NOTES:

1. DESIGN PRESSURE 2625 PSIG @ 100 F., .5 DESIGN FACTOR. DESIGN PRESSURE SET BY 2625 PSIG MAXIMUM PIPELINE TEST PRESSURE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATICALLY TEST FABRICATED ASSEMBLY TO A MINIMUM OF 3150 PSIG (MAXIMUM 3160 PSIG) FOR 8 HOURS.
4. DO NOT TEST WITH VALVES INSTALLED.
5. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL. TO BE SHOP COATED PER COLUMBIA SPEC OEP-13. REFERENCE PIPELINE & CORROSION HANDBOOK, SUPPLEMENT #8 TO P & P MANUAL FOR OPERATIONS, VOLUME 2, CHAPTER 1 1, REGISTRY 20.
6. PER OEP-134, SECTION IV, PARAGRAPH J, MANIFOLD PIPING PRODUCES A HOOP STRESS OF 91% OR LESS AT MAXIMUM TEST PRESSURE. MANIFOLD MINIMUM TEST PRESSURE IS BASED ON A FACTOR OF 1.2 X MAXIMUM PIPELINE TEST PRESSURE.

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTOCAD	JW	6-21-16
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3	-	-	-
4	-	-	-

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 20" TEST HEADER, ASME CL 1500
DETAIL BILL OF MATERIAL

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
-
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN	BY: -	DATE: -	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-9-20B
APP'D FOR CONST.	-	-	ISSUE: 1

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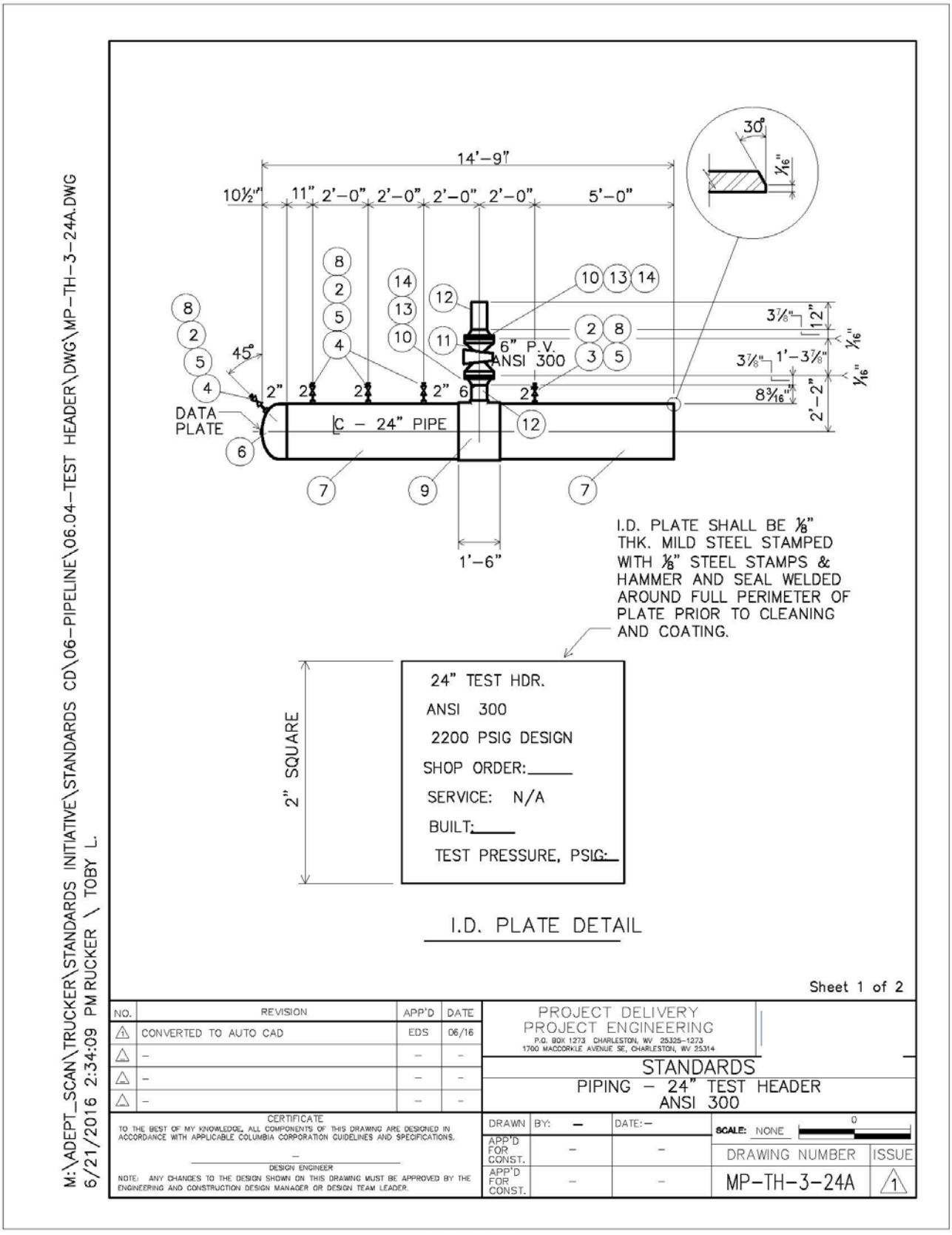
14'-9"
10½"
11"
2'-0"
2'-0"
2'-0"
2'-0"
5'-0"
30°
1/16"
45°
2"
6" P.V.
ANSI 300
3 7/8"
12"
1/16"
1'-3 7/8"
8 3/16"
2'-2"
DATA PLATE
℄ - 24" PIPE
1'-6"
I.D. PLATE SHALL BE 1/8" THK. MILD STEEL STAMPED WITH 1/8" STEEL STAMPS & HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING.
2" SQUARE
24" TEST HDR.
ANSI 300
2200 PSIG DESIGN
SHOP ORDER:____
SERVICE: N/A
BUILT:____
TEST PRESSURE, PSIG:__
I.D. PLATE DETAIL
Sheet 1 of 2
NO. REVISION APP'D DATE
1 CONVERTED TO AUTO CAD EDS 06/16
PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314
STANDARDS
PIPING - 24" TEST HEADER
ANSI 300
CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.
DRAWN BY: - DATE: -
APP'D FOR CONST. - -
APP'D FOR CONST. - -
SCALE: NONE
DRAWING NUMBER MP-TH-3-24A
ISSUE 1
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6/21/2016 2:34:09 PM RUCKER \ TOBY L.

MK	QUAN.	UNIT	S.S. NO.	SIZE	DESCRIPTION
1	3	EA	—	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	2	EA	13-48006	2"	2" P/V, SERCO AUDCO #HRWA44CC 3705# W.P. SCRD., WRENCH OPERATED
3	4	EA	17-92405	2"	2" x 20-36 W.O.L. XS
4	1	EA	17-92407	2"	2" x FLAT W.O.L. XS
5	5	EA	24-09241	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	18-07373	24"	24" CAP 0.494" W. GR. Y-65
7	16	FT.	07-366305	24"	24" PIPE 0.494" W. GR. X-65, DSAW
8	5	EA	26-58445	2"	2" PLUG XH HD
9	1	EA	17-67258	6"x24"	6"x24" FULL ENCIRCLEMENT SADDLE Y-65, 7/16" MIN THK., 11.52" MIN. WIDTH
10	2	EA	19-66278	6"	6" FLG. WN., ANSI 300, WNF. BORED FOR .280"W
11	1	EA	12-34313	6"	6" PLUG VALVE, ANSI 300, NORDSTROM, FIG. 2049, RAISED FACE FLG., CS, SHORT PATTERN,
12	4	FT.	07-53263	6"	6" PIPE 0.280"W., GR. 42, SMLS
13	2	EA	40-58086	6"	6" GASKET, NON ASB, ANSI 300
14	24	EA	28-46474	3/4"x5" LG.	3/4" x 5" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 300)

NOTES:

1. DESIGN PRESSURE 2200 PSIG @ 100 F, .9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 600 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATICALLY TEST FABRICATED ASSEMBLY TO A MINIMUM OF 2640 PSIG (MAXIMUM 2943 PSIG) FOR 8 HOURS.
4. DATA PLATE INFORMATION TO BE INCLUDED FOR COLUMBIA GAS SYSTEM MANUAL OF APPROVED PROCEDURES FOR OPERATIONS GUIDE #5, HYDROSTATIC TESTING OF PIPELINES, SECTION III, SUBPART 1 .
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL. TO BE SHOP COATED PER COLUMBIA SPEC OE-13. REFERENCE PIPELINE & CORROSION HANDBOOK, SUPPLEMENT #8 TO P & P MANUAL FOR OPERATIONS, VOLUME 2, CHAPTER 1 1, REGISTERY 20

Sheet 2 of 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
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4	-	-	-

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING — BOM & NOTES FOR 24" TEST HEADER, ANSI 300

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
—
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN	BY: —	DATE: —	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-3-24B
APP'D FOR CONST.	-	-	ISSUE: 1

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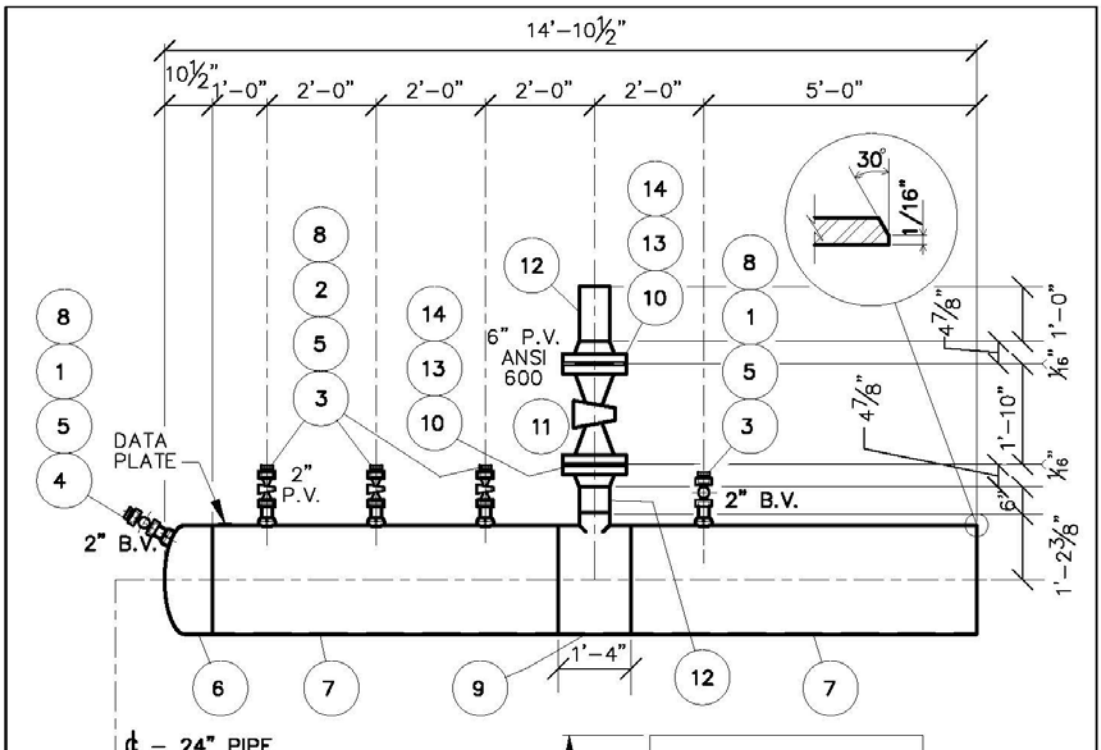

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
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PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING – 24" TEST HEADER
ANSI 600

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.

DESIGN ENGINEER

NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

DRAWN	BY: WPR	DATE: 02/12/10	SCALE: NONE
APP'D FOR CONST.	–	–	DRAWING NUMBER: MP–TH–6–24A
APP'D FOR CONST.	–	–	ISSUE: 1

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6/22/2016 9:19:19 AM RUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	36"x20"-2" W.O.L. XS
4	1	EA	2"	36"-18", FLAT, FLEXOLET, XS
5	4	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	24"	24" CAP 0.375" W. GR. Y-60
7	14	FT.	24"	24" PIPE 0.375" W. GR. X-60, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	24"x24" x6"	EXTRUDED TEE, 0.375" W. x 0.375" W. x 0.280" W. , Y-60
10	2	EA	6"	6" FLG. WN., ANSI 600, R.F., BORED FOR 0.280" W.
11	1	EA	6"	6" PLUG VALVE, ANSI 600, NORDSTROM, FIG. 2245, R.F., CS, REGULAR PATTERN,
12	4	FT.	6"	6" PIPE 0.280" W., GR. B, SMLS
13	2	EA	6"	6" GASKET, NON ASBESTOS, ANSI 600
14	16	EA	1"x 7" LG.	1"x 7" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 600)

NOTES:

1. DESIGN PRESSURE 1480 PSIG @ 100 F, 0.9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 600 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 1776 PSIG (1.2 x DESIGN PRESSURE OF 1480 PSIG) AND MAXIMUM PRESSURE OF 2145 PSIG (110% SMYS OF 1950 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
1	CONVERTED TO AUTO CAD	EDS	06/16
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CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
_____
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 24" TEST HEADER, ANSI 600
BOM & NOTES

DRAWN	BY: WPR	DATE: 02/16/10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-6-24B
APP'D FOR CONST.	-	-	ISSUE: 1

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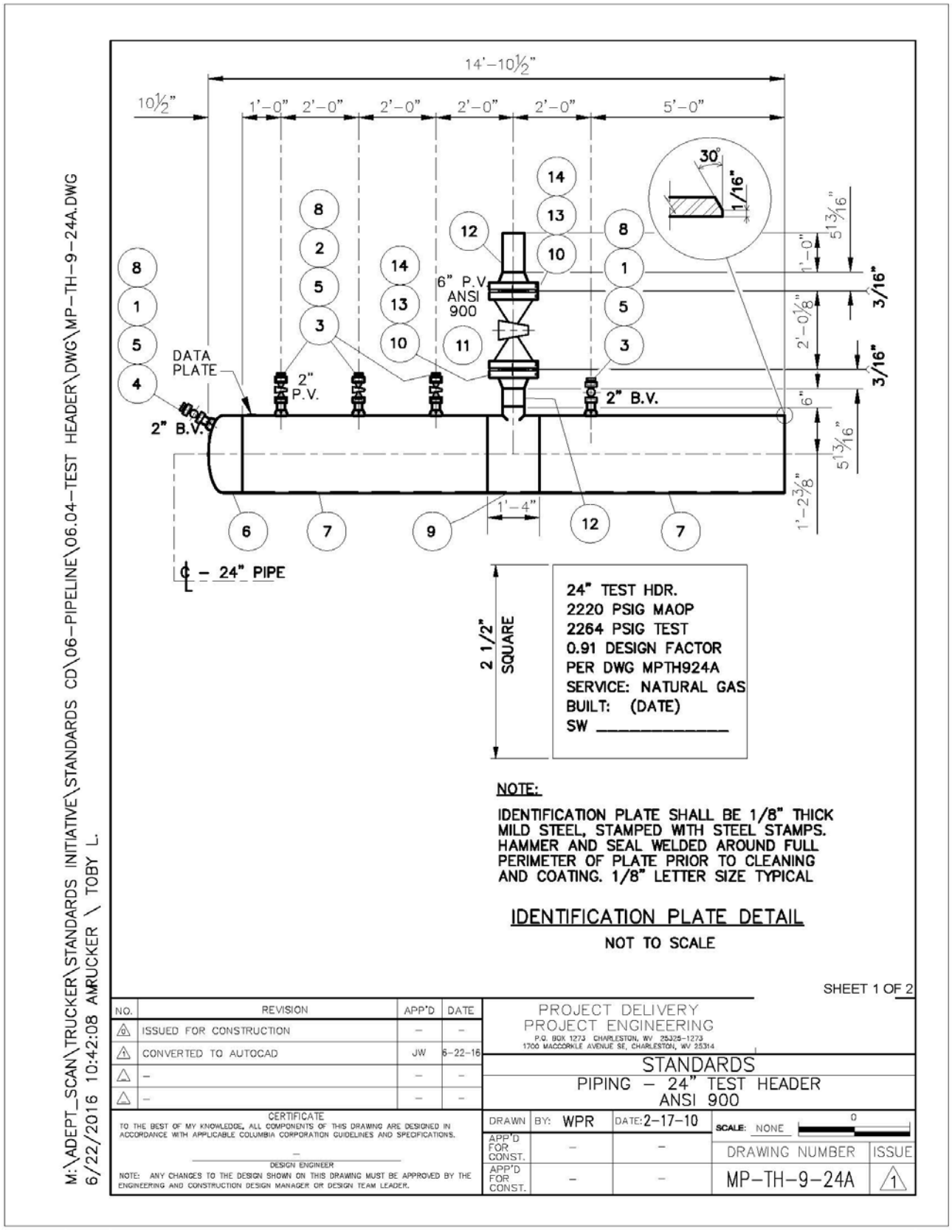
14'-10½"
10½"
1'-0" 2'-0" 2'-0" 2'-0" 2'-0" 5'-0"
30°
1/16"
6" P.V. ANSI 900
DATA PLATE
2" P.V.
2" B.V.
2" B.V.
1'-0"
5 13/16"
2'-0 1/8"
3/16"
3/16"
6"
5 13/16"
1'-2 3/8"
1'-4"
℄ - 24" PIPE
2 1/2" SQUARE
24" TEST HDR.
2220 PSIG MAOP
2264 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH924A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____
NOTE:
IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL
IDENTIFICATION PLATE DETAIL
NOT TO SCALE
SHEET 1 OF 2
NO. REVISION APP'D DATE
0 ISSUED FOR CONSTRUCTION - -
1 CONVERTED TO AUTOCAD JW 6-22-16
PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314
STANDARDS
PIPING - 24" TEST HEADER
ANSI 900
CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.
DRAWN BY: WPR DATE: 2-17-10
APP'D FOR CONST. - -
APP'D FOR CONST. - -
SCALE: NONE
DRAWING NUMBER MP-TH-9-24A
ISSUE 1
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6/22/2016 10:42:08 AM TRUCKER \ TOBY L.

MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	36"x20"-2" W.O.L. XS
4	1	EA	2"	36"-18", FLAT, FLEXOLET, XS
5	4	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	24"	24" CAP 0.500" W. GR. Y-65
7	14	FT.	24"	24" PIPE 0.500" W. GR. X-65, SMLS
8	5	EA	2"	2" PLUG XH HD
9	1	EA	24"x24" x6"	EXTRUDED TEE, 0.500" W. x 0.500" W. x 0.432" W. , Y-65
10	2	EA	6"	6" FLG. WN., ANSI 900, RTJ. BORED FOR 0.432" W.
11	1	EA	6"	6" PLUG VALVE, ANSI 900, NORDSTROM, FIG. 2349, RTJ., CS, REGULAR PATTERN,
12	4	FT.	6"	6" PIPE 0.432"W., GR. B, SMLS
13	2	EA	6"	6" GASKET, RING, OVAL, R-45 ANSI 900
14	24	EA	1 1/8"x 8" LG.	1 1/8"x 8" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 900)

NOTES:

1. DESIGN PRESSURE 2220 PSIG @ 100 F, 0.9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 900 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 2664 PSIG (1.2 x DESIGN PRESSURE OF 2220 PSIG) AND MAXIMUM PRESSURE OF 2979 PSIG (110% SMYS OF 2708 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
0	ISSUED FOR CONSTRUCTION	-	-
1	CONVERTED TO AUTOCAD	JW	6-22-16
2	-	-	-
3	-	-	-

CERTIFICATE
TO THE BEST OF MY KNOWLEDGE, ALL COMPONENTS OF THIS DRAWING ARE DESIGNED IN ACCORDANCE WITH APPLICABLE COLUMBIA CORPORATION GUIDELINES AND SPECIFICATIONS.
_____
DESIGN ENGINEER
NOTE: ANY CHANGES TO THE DESIGN SHOWN ON THIS DRAWING MUST BE APPROVED BY THE ENGINEERING AND CONSTRUCTION DESIGN MANAGER OR DESIGN TEAM LEADER.

PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 24" TEST HEADER, ANSI 900
BILL OF MATERIAL AND NOTES

DRAWN	BY: WPR	DATE: 2-17-10	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER: MP-TH-9-24B
APP'D FOR CONST.	-	-	ISSUE: 1

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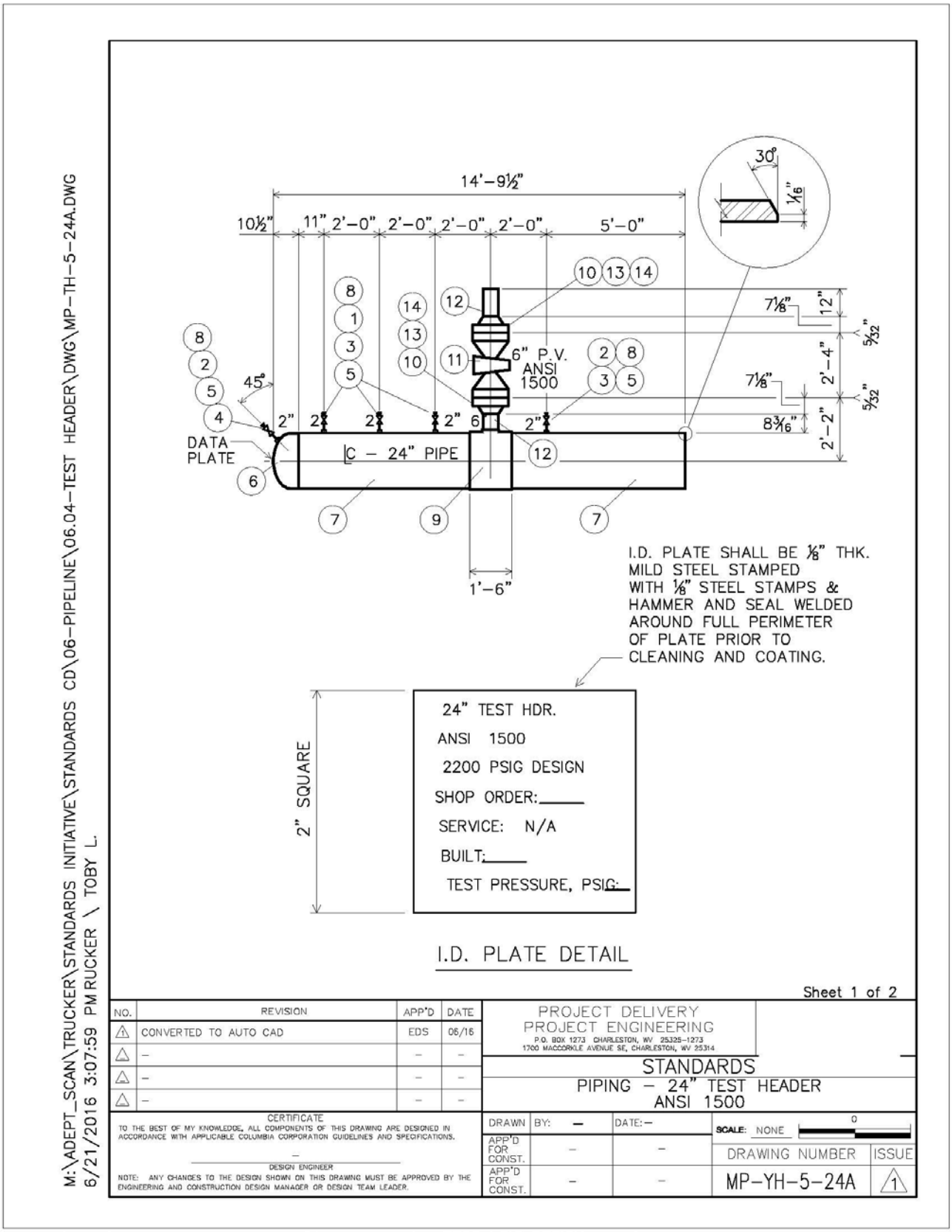
CIMAREX	Midstream Construction Specification	Standard No. 41020
	HYDROSTATIC TESTING OF GAS PIPELINES	Page 50 of 55



MK.	QUAN.	UNIT	S.S. NO.	SIZE	DESCRIPTION
1	3	EA	—	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	2	EA	13-48006	2"	2" P/V, SERCO AUDCO #HRWA44CC 3705# W.P. SCRD., WRENCH OPERATED
3	4	EA	17-92405	2"	2" x 20-36 W.O.L. XS
4	1	EA	17-92407	2"	2" x FLAT W.O.L. XS
5	5	EA	24-09241	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	18-07373	24"	24" CAP 0.494" W. GR. Y-65
7	16	FT.	07-366305	24"	24" PIPE 0.494" W. GR. X-65, DSAW
8	5	EA	26-58445	2"	2" PLUG XH HD
9	1	EA	17-67258	6"x24"	6"x24" FULL ENCIRCLEMENT SADDLE Y-65, 7/16" MIN THK., 11.52" MIN. WIDTH
10	2	EA	19-7169	6"	6" FLG. WN., ANSI 1500, RTJ. BORED FOR .432"W
11	1	EA	12-44213	6"	6" PLUG VALVE, ANSI 1500, NORDSTROM, FIG. 3049, RTJ., CS, REGULAR PATTERN,
12	4	FT.	07-53263	6"	6" PIPE 0.432"W., GR. 42, SMLS
13	2	EA	40-86093	6"	6" GASKET, RING, OVAL, R-45 ANSI 1500
14	24	EA	28-46659	1⅜"x 10½"LG.	1⅜"x 10½" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 1500)

NOTES:

1. DESIGN PRESSURE 3000 PSIG @ 100 F, .9 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 1500 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATICALLY TEST FABRICATED ASSEMBLY TO A MINIMUM OF 3600 PSIG (MAXIMUM 4248 PSIG) FOR 8 HOURS.
4. DATA PLATE INFORMATION TO BE INCLUDED FOR COLUMBIA GAS SYSTEM MANUAL OF APPROVED PROCEDURES FOR OPERATIONS GUIDE #5, HYDROSTATIC TESTING OF PIPELINES, SECTION III, SUBPART 1 .
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL. TO BE SHOP COATED PER COLUMBIA SPEC OE-13. REFERENCE PIPELINE & CORROSION HANDBOOK, SUPPLEMENT #8 TO P & P MANUAL FOR OPERATIONS, VOLUME 2, CHAPTER 1 1, REGISTERY 20

Sheet 2 of 2

NO.	REVISION	APP'D	DATE
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3	-	-	-
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PROJECT DELIVERY
PROJECT ENGINEERING
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1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - BOM & NOTES FOR 24" TEST HEADER, ANSI 1500

CERTIFICATE
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APP'D FOR CONST.	-	-	DRAWING NUMBER / ISSUE
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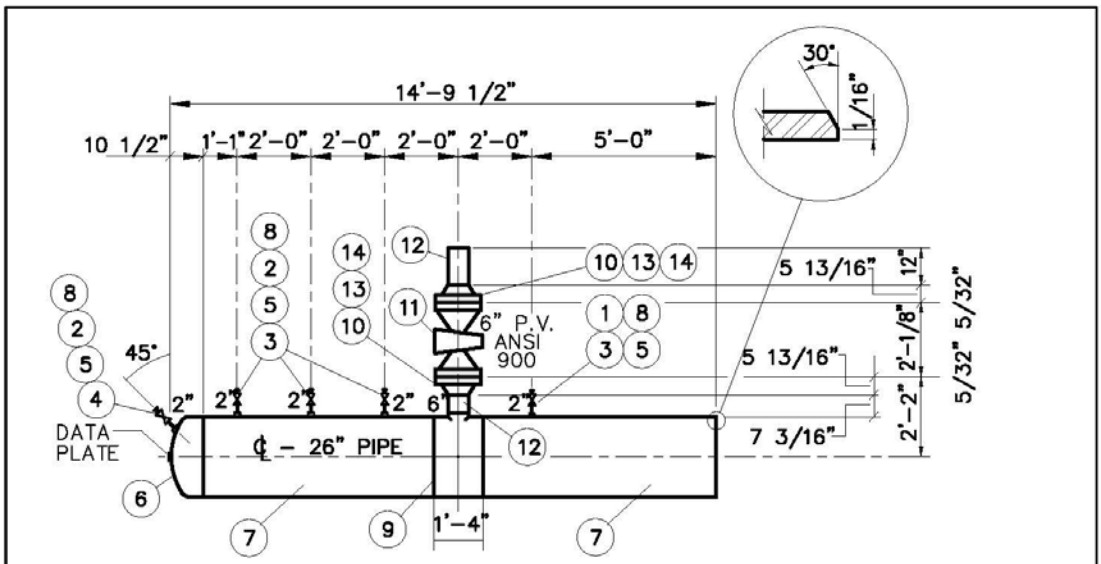

26" TEST HDR.
2220 PSIG MAOP
2640 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH926A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
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P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 26" TEST HEADER
ANSI 900

CERTIFICATE
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MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	2" x 20-36 W.O.L. XS
4	1	EA	2"	2" x FLAT W.O.L. XS
5	5	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	26"	26" CAP 0.500" W. GR. Y-65
7	16	FT.	26"	26" PIPE 0.500" W. GR. X-65, DSAW
8	5	EA	2"	2" PLUG XH HD
9	1	EA	26"x26" x6"	EXTRUDED TEE, 0.500" W. x 0.500" W. x 0.432" W. , Y-65
10	2	EA	6"	6" FLG. WN., ANSI 900, RTJ. BORED FOR .432"W
11	1	EA	6"	6" PLUG VALVE, ANSI 900, NORDSTROM, FIG. 2349, RTJ., CS, REGULAR PATTERN,
12	4	FT.	6"	6" PIPE 0.432"W., GR. 42, SMLS
13	2	EA	6"	6" GASKET, RING, OVAL, R-45 ANSI 900
14	24	EA	1 1/8"x 8" LG.	1 1/8"x 8" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 900)

NOTES:

1. DESIGN PRESSURE 2220 PSIG @ 100 F, 0.91 DESIGN FACTOR. DESIGN PRESSURE LIMITED BY 6" ANSI 900 VALVE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 2640 PSIG (1.2 x DESIGN PRESSURE OF 2220 PSIG) AND MAXIMUM PRESSURE OF 2750 PSIG (110% SMYS OF 2500 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
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PROJECT DELIVERY
PROJECT ENGINEERING
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1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 26" TEST HEADER, ANSI 900
BILL OF MATERIAL AND NOTES

DRAWN BY: JPD	DATE: 12-17-09	SCALE: NONE	0
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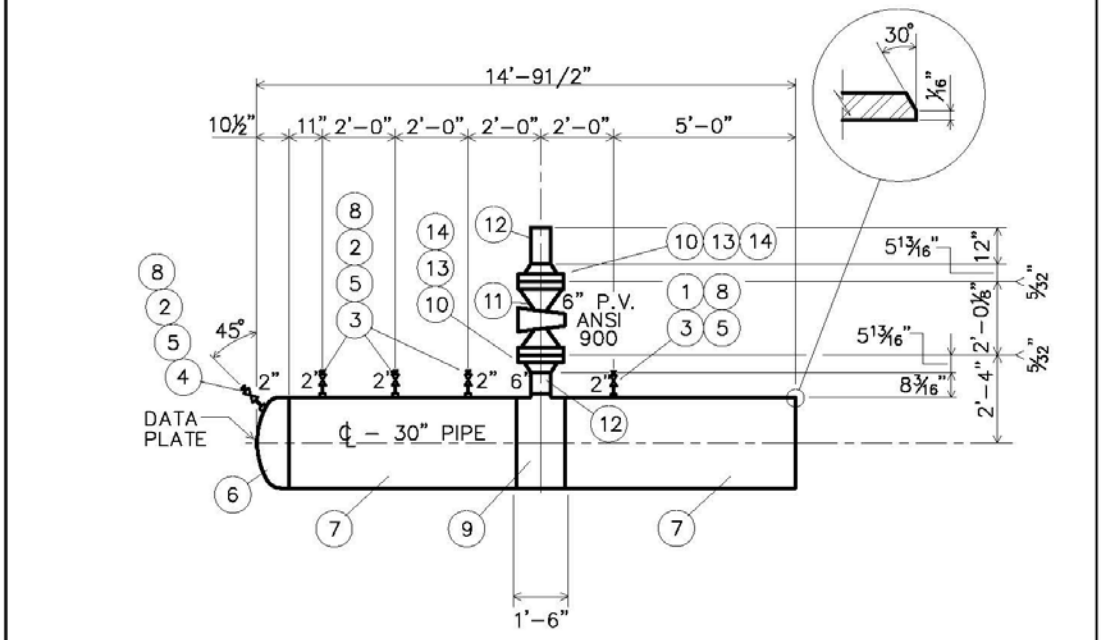

2½" SQUARE

30" TEST HDR.
1971 PSIG MAOP
2365 PSIG TEST
0.91 DESIGN FACTOR
PER DWG MPTH930A
SERVICE: NATURAL GAS
BUILT: (DATE)
SW _____

NOTE:

IDENTIFICATION PLATE SHALL BE 1/8" THICK MILD STEEL, STAMPED WITH STEEL STAMPS. HAMMER AND SEAL WELDED AROUND FULL PERIMETER OF PLATE PRIOR TO CLEANING AND COATING. 1/8" LETTER SIZE TYPICAL

IDENTIFICATION PLATE DETAIL

NOT TO SCALE

SHEET 1 OF 2

NO.	REVISION	APP'D	DATE
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PROJECT DELIVERY
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P.O. BOX 1273 CHARLESTON, WV 25325-1273
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STANDARDS
PIPING – 30" TEST HEADER
ANSI 900

CERTIFICATE
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MK.	QUAN.	UNIT	SIZE	DESCRIPTION
1	2	EA	2"	2" B/V, WATTS ROUGHNECK, 3000# WP #2"-C-7380-03-LL-SS, NYLON SEAT, SCRD.
2	3	EA	2"	2" P/V, NORDSTROM AUDCO FIG. 2344 2220# W.P. SCRD., WRENCH OPERATED
3	4	EA	2"	2" x 20-36 W.O.L. XS
4	1	EA	2"	2" x FLAT W.O.L. XS
5	5	EA	2"	2" x 4" NIPPLE XS T.O.E. B.O.E., GR. B SMLS
6	1	EA	30"	30" CAP 0.500" W. GR. Y-65
7	16	FT.	30"	30" PIPE 0.500" W. GR. X-65, DSAW
8	5	EA	2"	2" PLUG XH HD
9	1	EA	30"x30" x6"	EXTRUDED TEE, 0.500" W. x 0.500" W. x 0.432" W. , Y-65
10	2	EA	6"	6" FLG. WN., ANSI 900, RTJ. BORED FOR .432"W
11	1	EA	6"	6" PLUG VALVE, ANSI 900, NORDSTROM, FIG. 2349, RTJ., CS, REGULAR PATTERN,
12	4	FT.	6"	6" PIPE 0.432"W., GR. 42, SMLS
13	2	EA	6"	6" GASKET, RING, OVAL, R-45 ANSI 900
14	24	EA	1 1/8"x 8" LG.	1 1/8"x 8" LG. STUD BOLT ASTM A-193 B7 W/TWO ASTM A-194 GR. 2 H.N. (TAG: 6", ANSI 900)

NOTES:

1. DESIGN PRESSURE 1971 PSIG @ 100 F, 0.91 DESIGN FACTOR. DESIGN PRESSURE IS LIMITED BY 30" 0.500" x 65 PIPE.
2. COMPONENT IS DESIGNED AND CONSTRUCTED IN ACCORDANCEWITH THE LATEST REVISION OF TITLE 49 CFR, PART 192.
3. HYDROSTATIC TEST FABRICATED ASSEMBLY TO A MINIMUM OF 2366 PSIG (1.2 x DESIGN PRESSURE OF 1917 PSIG) AND MAXIMUM PRESSURE OF 2383 PSIG (110% SMYS OF 2167 PSIG) FOR 8 HOURS PER OEP 134 IV J.
4. DATA PLATE INFORMATION TO BE INCLUDED PER COLUMBIA GAS CORP., SPECIFICATION OEP 134, SECTION IV, SUBPART J.
5. DO NOT TEST WITH VALVES INSTALLED.
6. PIPE WILL BE SANDBLASTED TO A SSPC-SP-10-63 "NEAR WHITE METAL" FINISH AND COATED WITH AN APPROVED MATERIAL PER COLUMBIA SPECIFICATION OEP-13.

SHEET 2 OF 2

NO.	REVISION	APP'D	DATE
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PROJECT DELIVERY
PROJECT ENGINEERING
P.O. BOX 1273 CHARLESTON, WV 25325-1273
1700 MACCORKLE AVENUE SE, CHARLESTON, WV 25314

STANDARDS
PIPING - 30" TEST HEADER, ANSI 900
BOM & NOTES

DRAWN	BY: JPD	DATE: 12/17/09	SCALE: NONE
APP'D FOR CONST.	-	-	DRAWING NUMBER / ISSUE
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CIMAREX	**Midstream Construction Specifications**	Standard No. 41070
		Page 1 of 6
Keeper Approval Signature & Date:	**LOWERING-IN AND BACKFILLING**	Cimarex Approval Signature & Date:

Review and Revision History

Section	Date	Rev	Details
	1/1/2012	1	Original Issue
All Sections	6/24/2020	2	Updated all sections. Team revision.

Table of Contents

CIMAREX	**Midstream Construction Specifications**	Standard No. 41070
		Page 2 of 6
Keeper Approval Signature & Date:	**LOWERING-IN AND BACKFILLING**	Cimarex Approval Signature & Date:

1 SCOPE

1.1 Cimarex Midstream Construction Specifications contain guidelines, and requirements for the design, procurement and construction of natural gas pipeline and processing facilities. This standard defines the general requirements necessary for lowering-in and backfilling pipelines and related facilities.

2 CODES AND POLICIES

49 CFR Parts 192 – Transportation of Natural Gas and Other Gas by Pipeline
49 CFR Parts 195 – Transportation of Hazardous Liquids by Pipeline

3 DEFINITIONS

COMPANY – Cimarex Energy Midstream, the Owner and Operator of subject matter plant, pipeline, or facility midstream asset.

CONTRACTOR – the individual or vendor providing services and materials to COMPANY.

4 GENERAL

4.1 PURPOSE

4.1.1 The COMPANY Construction Standards are applicable to the:

a. Maintenance of facilities
b. Constructing of facilities

4.1.2 The purpose of this specification is to provide installations that remain stress-free during and subsequent to the lowering and backfilling operation and the consolidation of the backfill material.

4.2 BEDDING

4.2.1 CONTRACTOR shall provide bedding material placed evenly and continuously to a minimum depth of 6 in. along the bottom of the ditch prior to lowering in unless otherwise directed by the COMPANY. Sandbags can be used per company approval.

4.2.2 Bedding material shall be free from trash, debris, and rocks larger than 3/4 inches. Acceptable rock-free bedding material may be obtained directly from the spoil, or by using padding machine with material taken directly from the spoil or rock-free padding material can be hauled in by the CONTRACTOR per COMPANY's request.

4.2.3 When approved by COMPANY rock shield may be used and bedding material shall be free from rocks larger than 2 inches.

4.2.4 Topsoil taken from the right-of-way shall not be used for bedding the ditch unless otherwise approved by COMPANY.

4.3 LOWERING-IN PIPELINE

4.3.1 Holiday detection (Jeeping) shall be performed just prior to lowering in operation and coating shall be closely inspected for possible damage resulting from the lowering in operation.

4.3.2 All coated pipe shall be 100% inspected for holidays. Either a pulsating or a no pulsating spiral coil or wet sponge detector is acceptable. Detector should be operated according to the requirements in NACE SP0490-2007-SG (formerly RP0490) Holiday Detection of Fusion-Bonded Epoxy External Pipeline Coating of 250 to 760 µm (10 to 30 mil). Use 100-125 volts/mil, or as recommended by the coating manufacturer. The holiday detector shall have an audible alarm.

4.3.3 The holiday detector voltage shall be measured and recorded every hour with an accurate DC voltmeter. The holiday detector shall be recalibrated after recording its voltage or during noticeable changes in handling.

4.3.4 The detector electrode shall be in direct contact with the entire surface of the coating being inspected. There shall be no gaps in the electrode or separations between the electrode and the surface of the coating, including the surfaces on either side of the longitudinal seam of the pipe.

4.3.5 The travel rate of the detector's electrode shall not exceed 1 foot/second and shall not be allowed to remain stationary while the power is on. Refer to NACE SP0490-2007-SG (formerly RP0490) Holiday Detection of Fusion-Bonded Epoxy External Pipeline Coating of 250 to 760 µm (10 to 30 mil) to determine rate of travel.

4.3.6 Lowering in operations shall only be performed in the presence of and with the approval of the COMPANY Representative. Should lowering in be performed in the absence of or without the approval of the COMPANY Representative, CONTRACTOR may be required to raise the section of line for inspection at CONTRACTOR’s expense.

4.3.7 Sections of the coated pipe shall not be dragged or pulled into position, unless approved by COMPANY Representative. The length of sections shall be regulated to allow handling without damaging the protective coating.

4.3.8 All over-bends shall be installed to clear the high point of the bottom of the ditch by at least 12 in. at the point of bend. At side-bends, the pipe shall be lowered to allow minimum 6 inches clearance from the sidewall or sandbags installed to prevent contact with sidewall.

4.3.9 The CONTRACTOR shall provide padded slings for handling coated and wrapped pipe. All slings shall be weight rated and in good condition. The use of belting reinforced with wire cable shall not be permitted. Any method of lowering-in which prevents damage to the coating shall be acceptable; however, the use of cradles is preferred.

4.3.10 Prior to lowering-in the CONTRACTOR shall provide, to the satisfaction of the COMPANY Representative, a ditch which is free from excess debris, large rocks and roots, welding rods, skids or other such objects which can cause damage to the pipe and its protective coating during lowering-in operations.

4.3.11 CONTRACTOR shall pump water from the ditch, bell holes or other tie-in excavations prior to lowering-in.

4.3.12 If warranted by the condition of the ditch, and if acceptable to the COMPANY, the CONTRACTOR may fill sections of the pipeline with silt-free water to achieve temporary negative buoyancy during lowering-in operations

4.4 PIPELINE SUPPORTS

4.4.1 The CONTRACTOR shall construct the pipeline to lie on the bedding of the pipe trench. Additional excavation shall be made as necessary around valves and fittings to provide for continuous support of the mainline by the bottom of the trench. All bends shall be made to fit the pipe ditch.

4.4.2 All risers shall be supported by concrete support blocks (sleepers) with dimensions as shown in Table 1 and DWG No. XEC-STD-SL-001.

TABLE 1 - CONCRETE SLEEPER SCHEDULE

PIPELINE SIZE	BLOCK SIZE
2" - 6"	3’-4”x3’-4”x2’-8”
8" - 16"	4’x4’x2’8”
20" and larger	6’x4’x2’-8”

4.4.3 Where pipe cannot be directly supported by the bottom of the trench, support shall be provided by sandbags or other COMPANY approved materials. Sandbags shall be placed at points to provide stress-free support for the pipeline subsequent to backfilling. Spacing intervals for sandbag supports shall not exceed 15 ft. All sandbag supports shall be at a minimum of at least two sandbags wide. Support shall be placed at points to provide a stress-free installation subsequent to backfill.

4.4.4 In lieu of sandbags, manufactured supports may be substituted. Supports shall be constructed in strict accordance with the manufacturer’s instructions and at spacing intervals no greater than the appropriate maximum interval recommended by the manufacturer. The CONTRACTOR shall not use any support method without the prior approval of the COMPANY and without providing the COMPANY with the manufacturer’s recommended installation directions for the specific method being used.

4.4.5 Sections of the pipeline excavated for tie-ins shall be supported with sandbags or other approved materials at intervals indicated above. Supports shall be placed immediately after final tie-in to provide a stress-free installation subsequent to the backfilling operation.

4.4.6 At foreign pipeline crossings, the COMPANY's pipeline shall be supported by sandbags as necessary to ensure proper support, with final determination of proper support being at the discretion of COMPANY and separated from the foreign line by a minimum of 24 inches prior to commencement of backfilling.

4.5 PADDING

4.5.1 CONTRACTOR shall provide padding material placed evenly and continuously to a minimum cover of 12 in. above the pipe prior to backfilling unless otherwise directed by the COMPANY.

4.5.2 Padding material shall be free from trash, debris, and rocks larger than 3/4 inches. Acceptable rock-free bedding material may be obtained directly from the spoil, or by using padding machine with material taken directly from the spoil or rock-free padding material can be hauled in by the CONTRACTOR. Topsoil from the right-of-way shall not be used for padding the ditch.

4.5.3 CONTRACTOR shall not take pad dirt from any landowner without prior written approval or as may be covered in the right-of-way easement provisions.

4.6 TRENCH BREAKER

4.6.1 The CONTRACTOR shall install erosion breakers in the ditch over, under and around the pipe to provide full protection against backfill washing at various points along the pipeline. COMPANY representative as Inspector or Foreman will determine quantities, and locations. Unit price should be approved upon bid award.

4.6.2 Breaker materials shall include, but are not be limited to, decomposable bags, sand and any other materials required to facilitate the proper placement of the breaker material in the ditch. Sandbags are allowed.

4.6.3 Breaker installations may be comprised either of a multiple sandbag configuration or by other approved methods. All breaker installations shall meet the approval of the COMPANY.

4.6.4 Breaker size is dependent on the extent and condition of the ditch in depth, width, slope and grade. At a minimum, breakers shall extend the width and depth of the ditch.

4.6.5 Breakers shall be spaced along the ditch in accordance with the COMPANY's representative

4.7 BACKFILLING

4.7.1 After lowering-in has been completed, but before backfilling, the ditch shall be pumped dry in upland areas and the line shall be inspected to ensure that no skids, brush, stumps, trees, boulders or debris are in the ditch. No such materials or debris are to be backfilled into the ditch.

4.7.2 CONTRACTOR shall backfill the ditch sufficiently to prevent floating after the pipe has been inspected and approved by the COMPANY Representative.

4.7.3 CONTRACTOR shall backfill once protective coating has been repaired and cured.

4.7.4 The CONTRACTOR shall complete the filling of the ditch to produce a trim backfill. Excavated material shall be placed in the ditch. Topsoil, where it has been segregated, shall be backfilled as close as possible to its original location. The CONTRACTOR shall not use soil from the right-of-way except from the spoil bank.

4.7.5 Large rock or boulders in excess of 12 inches in diameter, width or length, shall not be backfilled into the ditch. Such rock shall be disposed of properly.

4.7.6 Warning tape or ribbon shall be installed 12- to 18-inches above pipe for the full length of pipe

4.7.7 The CONTRACTOR shall be responsible for timeling padding and backfilling after the pipe has been lowered in.

Emergency Response Quick Guide

Spring 2021

ERP Quick Guide Contacts

CIMAREX ENERGY CO.

Table of Contents

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Dwayne Ricks *Production Supt. - Cana*	918.560.7268	580.774.8297	dricks@cimarex.com

Logistics Section Chief Team

Nick Koch *Production Supt.*	432.620.1948	432.210.0377	nkoch@cimarex.com
Heath Goodall *Manager, Materials*	918-508-9158	918-508-9158	hgoodall@cimarex.com
Ben Duff *Sr. Production Foreman, Madill*	580.795.3391	580.490.6440	bduff@cimarex.com
Brady Smith *Facilties Construction Supervisor - Midstream*	432.571.7711	505.506.7116	bmsmith@cimarex.com

Human Resources

Name/Position	Office	Cell	Email
Janet Killian *Regional HR Manager - Midland*	432.620.1918		jkillian@cimarex.com
Sarah Phelps *Regional HR Manager - Tulsa*	918.561.7178	918.625.3429	sphelps@cimarex.com

Financial Section Chief Team

Lesley Edwards *Manager Expenditure Accounting*	918.295.1793	918.645.8209	laedwards@cimarex.com

Well Control Team

Charlie Pritchard *Manager, Drilling/Completions - Permian*	432.620.1975	432.238.7084	cpritchard@cimarex.com
Spencer Bryant *Drilling Supt. - Permian*	432.620.7885	580.603.2611	sbryant@cimarex.com
Mike Fraley *Completions Supt - Permian*	432.620.1985	575.390.9097	mfraley@cimarex.com
Monte Thiems *Drilling & Completions Supt. - MC/Western/GC*	918.295.1791	918.607.6030	mthiems@cimarex.com

Administrative Support Team

Candice Firouzi *ESH Tech*	918.295.1645	918.606.4838	cfirouzi@cimarex.com
Yvonne Dozier *Administrative Assistant - ESH*	918.295.1758	918.633.9911	ydozier@cimarex.com
Sharon LaValley *Regulatory Supervisor & Lead Engineer Tech*	918.295.1673	918.639.4157	slavalley@cimarex.com
Laci Luig *ESH Specialist*	432.571.7810	432.425.0434	lluig@cimarex.com
Brittany Gordon *Engineering Tech, Production*	432.620.1960		bgordon@cimarex.com

IT / Tech Support Team

Name/Position	Office	Cell	Email
Doug Custer *Application Project Manager - Tulsa*	918.560.7058	918.409.9190	dcuster@cimarex.com
Heather Hayne *Product Development Manager*	918.295.1655	918.277.2301	hhayne@cimarex.com
Doug Brandt *Manager Computer Services*	918.295.1834		dbrandt@cimarex.com

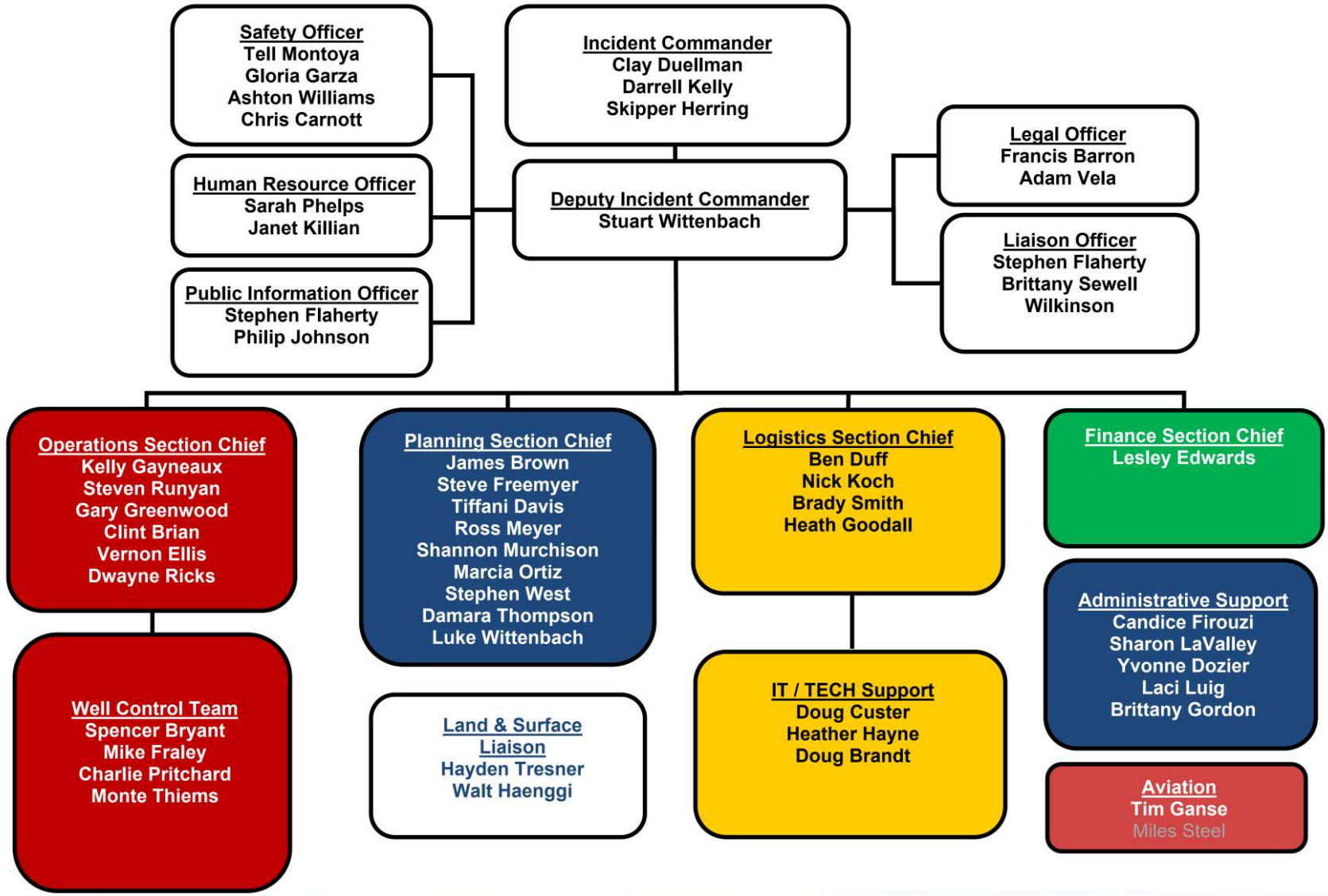
Aviation

Tim Ganse *Captain*	303-898-6834	tganse@cimarex.com
Miles Steel *Captain*	303.596.8052	msteel@cimarex.com

Land & Surface Liaison

Name/Position	Office	Cell	Email
Hayden Tresner *Land Manager, Anadarko Region*	918-560-7080	432-413-1560	htreanor@cimarex.com
Walt Haenggi *Surface Landman, Permian*	432-620-1965	432-620-1965	whaenggi@cimarex.com

5.4 Incident Management Team



To properly respond to any emergency, incidents should be classified into one of three levels. The incident level is determined by the complexity of the incident, the risks to Cimarex personnel and the public, and the impact on the environment. These level classifications will be used to communicate to all personnel within the company.

The focus of this guidance presented in this section is on the organization, functions, roles, and responsibilities associated with IMT's developed to respond to emergencies.

Response Levels	
Level	**Ranking**
1	**Lowest**
2	**Intermediate**
3	**Highest**

3.1 Level 1 Incidents

These incidents are those that can be effectively managed within the Division without activating the Incident Management Team. Notification to Regional Manager and/or Department Vice President is determined by the nature of the incident.

LEVEL 1	✓	An incident without fire, recordable injuries, public involvement or media attention.
	✓	Spills that are not agency recordable.
	✓	An incidental release of a substance that can be absorbed, neutralized, or otherwise controlled at the time of a release by employees in the immediate area, that does not pose a potential safety or health hazard or threat to the environment, and that is not immediately reportable to the government.
	✓	Property damage less than $100,000.

3.2 Level 2 Incidents

These incidents are those that require notification to the Vice President Level. Additional corporate notification will be determined by the nature of the incident. Activate Incident Management Teams as appropriate.

LEVEL 2	✓	Recordable or serious injury to any person. (employee and/or contractor)
	✓	Any other incident or situation which may create a serious risk to life, property, or the environment.
	✓	Spills that are agency reportable, or releases, explosions, fires, or other incidents that are required to be immediately reported to any government agency.
	✓	Property damage from $100,000 to $250,000.
	✓	Incidents that may expose the company to significant liability, whether employees are involved or not (e.g. vehicle accident).
	✓	Fines, penalties, administrative orders, etc., received from any government agency.
	✓	Fires which are controlled and immediately extinguished.
	✓	Any event that affects the public, or is likely to attract adverse media coverage.
	✓	Incidents that affect others which are a concern for the Company (e.g. helicopter, marine, or facility incidents involving other operators).
	✓	Severe Weather Events.

3.3 Level 3 Incidents

These incidents are those which require notification to Senior Executive Management. Incident Management Teams may be activated depending on the nature of the incident.

LEVEL 3	✓	Death or injury to any person which has a substantial risk of permanent disability or impairment.
	✓	Major spills, toxic gas releases, or other significant environmental damage.
	✓	Blowouts.
	✓	Fires not immediately controlled and extinguished.
	✓	Natural Disasters
	✓	Property damage greater than $250,000.
	✓	Incidents that have potential for national / international media coverage.
	✓	Incidents that could significantly impact the company's cash flow and/or financial performance.

Section 7 - Media Relations

7.1 Media Relations

Communication and public affairs are best handled by persons trained in dealing with the media. There will be times when it is not practical to refer all questions from the media and public to corporate headquarters. Indeed, a factual, short response can help reduce the time and effort ultimately needed to respond to the media and public.

INITIAL NOTIFICATIONS

Notifications regarding an incident and associated media inquiries should follow the following process.

If the press or media arrive on scene, please follow the procedures below:				
✓	Immediately contact:			
	Name	**Office**	**Cell**	**Home**
	Adam Vela	303-285-4974	720-427-4568	303-839-8352
	Francis Barron	303-285-4968	303-520-7411	303-756-6335
	Stephen Flaherty	303-335-1311	303-483-3355	303-483-3355
✓	If you cannot reach the individuals above, limit any statement to the information located in **Section 7.2** of this ERP.			

All information released will be handled in accordance with the following policy:	
✓	In the event of injuries or loss of life, the names will be withheld until the next of kin is notified.
✓	Individuals assigned to guard duty should be courteous, as they will generally be the first Cimarex representatives with whom reporters and photographers will have contact. When press representatives ask guards at the facility or lease gates for permission to enter, the guards will tell them, as politely as possible, that they do not have the authority to grant such permission and will suggest that, for official information, they talk to the Public Relations representative who will be at the scene of the emergency.
✓	Reporters, photographers, and other unauthorized personnel are not to be permitted to be on the lease or near the facility during an emergency.
✓	There is to be no Company interference with reporters and photographers who are not on Company property. Photographers have rights to take photographs from public highways, and railroad property.
✓	**OUR REPRESENTATIVES MUST NOT DO ANY GUESSING OR SPECULATING**. They must state only established facts. Say no more than is needed. Whenever it is evident that the reporter is trying to make a sensation out of the incident to represent the danger or loss as being greater than it is, our representatives are to state the facts as they are. This is particularly necessary in the case of petroleum product fires, which are spectacular and usually look more serious than they are.

7.2 Example - Emergency Communication

Initial Verbal Media Response

"A _____ (release, fire, accident) occurred at Cimarex Energy Company's _____ (name of facility, location, platform, etc.) in_____ (city/offshore site) at approximately _____ (time), _____ (date). Cimarex has initiated response activities and authorities have been notified. Additional information will be provided as appropriate."

General comments for verbal use only in response to media inquiries to be given by site supervisor or communications director as appropriate

1. "Safety and environmental responsibility are top priorities at Cimarex Energy Company. While prevention of this type of situation is a core part of our operational strategy, we do prepare for these situations and emphasize internal response training."

2. "(We are responding) or (Necessary teams are responding) and we will share appropriate information with you when it is available."

3. Answers to general questions about the site/facility.

CIMAREX OFFICE LOCATIONS 12.10.20

APPALOOSA
2111 CR 428
PECOS, TX 79772

CANA
26170 HWY 281 SPUR
GEARY, OK 73040
PH: 405.901.0112
FAX: 405.543.1451

CARLSBAD
2110 Aviation Way
Carlsbad, NM 88220
PH: 575.628.3447
FAX: 575.628.3566

CLINTON
1723 MARSHALL ROAD
P.O. BOX 1329
CLINTON, OK 73601
PH: 580.323.4501
FAX: 405.543.1449

DENVER
1700 LINCOLN STREET
SUITE 3700
DENVER, CO 80203
PH: 303.295.3995
FAX: 303.295.3494

EL RENO
3503 E JENSEN ROAD
EL RENO, OK 73036
PH: 405.262.2966
FAX: 405.262.2969

ELMORE CITY
30191 N. COUNTY RD 3120
ELMORE CITY, OK 73433-9163
PH: 580.788.4122
FAX: 405.543.1451

HOBBS
2020 W. BENDER BLVD.
HOBBS, NM 88240
PH: 575.393.1020
FAX: 575.218.7118

MADILL
217 PLAZA
P.O. BOX 340
MADILL, OK 73446
PH: 580.795.3391
FAX: 580.795.7014

MIDLAND
600 N. MARIENFELD STREET
SUITE 600
MIDLAND, TX 79701
PH: 432.571.7800
FAX: 432.571.7832

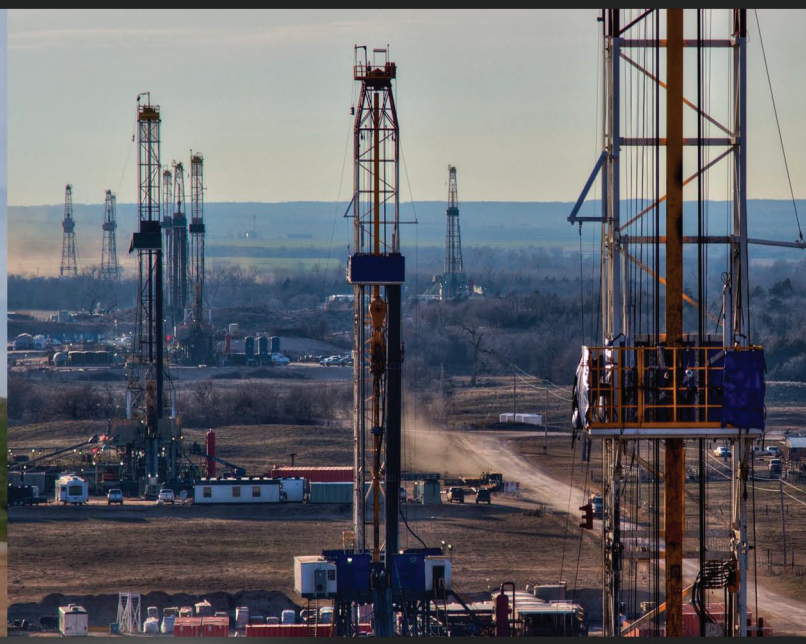
MONAHANS
2410 S LOOP 464
MONAHANS, TX 79756
PH: 432.242.2967

ODESSA
14000 W. INTERSTATE 20
ODESSA, TX 79765
PH: 432.561.8730
FAX: 432.242.2979

TRIPLE CROWN
40350 FM 3541
ORLA, TX 79770
PH: 432.571.7700

TULSA
202 S. CHEYENNE AVE
SUITE 1000
TULSA, OK 74103-3001
PH: 918.585.1100
FAX: 918.585.1133

Cimarex Energy Co. Emergency Response Plan



Developed by:

The Response Group
Emergency Response | Pre-Planning & Support

Houston, TX - Anchorage, AK - Boston, MA - Chicago, IL

www.responsegroupinc.com

281.880.5000

Cimarex Energy Notification Quick List							
✓	Type*	Notifications	First Name	Last Name	Contact Number	Action	Date / Time
Internal Notifications							
	R	Immediate Supervisor				RADAR Report prepared by Supervisor	/
	R	ESH Department	Stuart	Wittenbach	918-404-1084	Continue Notification Process	/
Oil Spill Removal Organizations							
	R	Acme Boom & Equipment			918-836-7184	Call, as incident need dictates, to activate OSROs	/
	R	Dillon Environmental			580-226-5303		/
	R	NTG			432-685-3898		
	R	Talon LPE			575-746-8768		/
	R	Tetra Tech			432-682-4559		
IAP Support							
	R	The Response Group			281-880-5000	Call for spill trajectory analysis and IAP support	/

External Notifications					
	Type*	Agency	Contact	When to Notify	Date/Time
	R	National Response Center - NRC	800-424-8802 202-267-2675	• Oil Discharge • Release over RQ of Hazardous Substance • Sheen on surface of water or shoreline • Notify as soon as practical	/
	C	Environmental Protection Agency – EPA Region 6	866-372-7745 800-667-6063	• Any unanticipated bypass exceeding limitation in permit • Any upset condition which exceeds in permit • Violation of maximum daily discharge limitation or daily minimum toxicity limitation • Chemical spills of a reportable quantity • Notify as soon as practical	/

Cimarex Energy Notification Quick List

	Type*	Agency	Contact	When to Notify	Date/Time
	R	Occupations Safety and Health Administration	800-321-6742	Any accident involving an employee in which a serious injury, illness, or death occurs	/
	C	DOT Pipeline and Hazardous Material Safety Administration	202-366-4433	Initial Notification made with call to NRC	/
	C	Chemical Safety and Hazard Investigation Board	202-261-7600	Initial Notification mage with call to NRC	/
	C	Bureau of Land Management	225-389-5073	Any spill on Federal and Indian oil and gas leases or State or private land leases within a federally supervised unit or communalized areas	/
	R	New Mexico Environmental Department	505-827-9329	A discharge of any material in a quantity that may be detrimental to human health, animal/plant life, cause property damage, etc.	/
	R	New Mexico EMNRD Department of Oil Conservation	575-370-3186	Notify within 24-hrs of a release.	/
	C	New Mexico Pipeline Safety Bureau	505-490-2375	Initial notification made with call to NRC.	/
	R	Oklahoma Corporation Commission Oil and Gas Division	405-521-2240	Notify within 24-hrs any spill to land of 10 or more bbl. Of any substance used or produces in petroleum exploration and/or production	/
	R	Oklahoma Department of Environmental Quality	800-522-0206	Any spill that affects surface water in the watershed of a water supply lake.	/
	R	Texas Spill Reporting Hotline	800-832-8224	All environmental emergencies, discharge, spill, or air release	/
	R	Texas Railroad Commission	844-773-0305	Immediate notice of a fire, leak, spill, or break.	
	R	Local Agencies	See Section 5	--	
	R	LEPCs	See Section 5	--	

R – Required Notification
C – Courtesy Notification

Table of Contents

Section 1 Plan Introduction

1.1 Owner & Operator

This Emergency Response Plan (ERP) is developed for:

Owner/Operator & Address	**Cimarex Energy Co.** 1700 Lincoln Street, Suite 3700 Denver, Colorado 80203

Cimarex Energy Co. (Cimarex) is an independent oil and gas exploration and production company based in Denver, CO and with major offices located in Tulsa, OK and Midland, TX.

1.2 Purpose

This ERP is designed to provide Cimarex employees, and designated Incident Management Team (IMT) members with the information necessary to respond to incidents in a safe, rapid, effective, and efficient manner. For purposes of this ERP, incidents are defined as events that happen within a facility or outside the facility (including well sites) that create unacceptable impacts on people, the environment or property, and require emergency response operations. The ERP's primary goal is to help Cimarex prevent, as far as practical, any injury or loss of life, damage to property, wildlife, or the environment. The health and safety of the public, Cimarex employees, and its contractors will always be the primary objective of this ERP.

1.3 Scope

This ERP applies to emergency response operations carried out by Cimarex. This ERP applies to all incidents that result from Cimarex operations.

IMT personnel require a variety of 'tools' to carry out their responsibilities. Some of these tools are included in this ERP. However, most tools reside outside this ERP and may have to be accessed, along with this ERP, at the time of an incident.

Although this ERP contains procedures applicable to most foreseeable incidents, actual conditions will dictate whether deviations from the ERP are appropriate.

1.4 Objectives

Plan Objectives	
✓	Serve as the basis for an organized action plan in dealing with emergencies.
✓	Spell out responsibility, priority and importance in responding to an emergency.
✓	Provide information regarding the handling of serious incidents and identify the organizations that are involved.
✓	Identify personnel and agencies that must be notified.

Section 2 - ERP Maintenance and Review

2.1 Management of Change

This section describes the Management of Change (MOC) procedure that is followed to make changes to this ERP.

The MOC Coordinator is the ESH Department.

All recommended changes must be submitted in writing to the MOC Coordinator and include the following information:

Recommended Change Required Information	
✓	Name of person submitting the change(s) and position
✓	The recommended change(s)
✓	The reason for the change(s)

Strategic changes are defined as those that result in a change in:

Strategic Changes	
✓	Organizational Changes
✓	Procedure Modifications
✓	Change in Commodities Transported
✓	Regulatory Mandates
✓	Asset Acquisitions

Changes that are deemed by the MOC Coordinator to be tactical or editorial in nature can be made by the MOC Coordinator without further review.

Revisions are documented in Section 2.4 Record of Revisions in this ERP.

2.2 Plan Administration

The ESH Department is responsible for the overall administration of the Cimarex ERP and shall include ensuring that this ERP contains the necessary information to effectively support a Cimarex response.

2.3 Plan Review

This ERP will be reviewed annually by the ESH Department. Any revisions made to the ERP will be listed on the Record of Revisions table in **Section 2.4.**

Primary Contacts	Stuart Wittenbach	918-560-7257
	Yvonne Dozier	918-295-1758
ERP Review	This ERP will be reviewed at a minimum of once per year, and follow the MOC procedure listed in **Section 2.1,** to ensure that it is current regarding personnel changes, contact information, contractor and available equipment changes, and other relevant information as required.	
Significant Updates	ERP revisions should be made if: a) Changes occur which will impact response capabilities; b) Any change occurs with regard to primary response personnel listed on the response team; or c) Any change occurs with regard to the name or capabilities of the primary response contractors.	
Documentation and Distribution	All revisions will be recorded on the Record of Revisions table in **Section 2.4**. The ERP Distribution List is located in **Section 2.6**.	

2.4 Record of Revisions

Date	Section	Revision Made by	Description
February 2011	All	TRG	Initial Version of ERP
July 2011	Section 5 & 8	TRG	Update to personnel and phone numbers. Removed Big Piney from Area of Operations
October 2011	Section 7	TRG / Cimarex	Added holding statements
December 2011	Section 4 & 5	Cimarex	Updated personnel and phone numbers. Update to media inquiries for field response
January 2012	Section 5 & Cover Page	Cimarex	Finalized cover page and updated contact info
March 2012	Section 5	Cimarex	Updated personnel
June 2012	Section 5	Cimarex	Updated personnel & phone numbers
September 2012	Section 5	Cimarex	Updated personnel, phone numbers, and spill response contractors for all areas
April 2014	All	TRG	Updated entire plan
September 2014	Section 5	TRG	Updated IMT personnel & phone numbers
February 2015	Section 5 & 6	TRG	Updated IMT personnel & ICS Section colors
September 2015	Entire Plan	TRG / Cimarex	Updated entire plan
April 2016	Section 5	TRG	Updated IMT personnel & phone numbers and updated some Federal/State Agency phone numbers
November 2016	Section 5	TRG	Updated IMT personnel & phone numbers, removed contact information for Gulf Coast Division (sold property)
December 2016	Section 5	TRG	Updated IMT personnel & phone numbers
April 2017	Sections 5, 7, & 10, and Appendix A	TRG	Updated Management Contact List, IMT personnel & phone numbers, IMT Org Chart, Media Relations & Well Control Contact List personnel & phone numbers, Updated ICS forms
July 2017	Section 5	TRG	Updated IMT personnel & phone numbers, IMT Org Chart
August 2017	Section 5	TRG	Updated IMT personnel & phone numbers, IMT Org Chart

December 2017	Section 5	TRG	Updated IMT personnel & phone numbers, IMT Org Chart
April 2018	Section 5	TRG	Updated IMT personnel & phone numbers, IMT Org Chart
June 2019	All	TRG / Cimarex	Updated entire plan to reflect personnel changes and update information
June 2020	Sections 3,5,7	TRG/Cimarex	Incident levels, personnel changes, phone numbers
October 2020	Sec.1,2,5, Append. A	TRG/Cimarex	Denver office address, IMT personnel & Org chart
April 2021		TRG/Cimarex	Notification List updates, Appendix B Aviation Incident updates, addition of water authorities and contacts. General formatting update.

2.5 Distribution

Each copy of this ERP shall be assigned a number and distributed as a controlled hard copy format to the appropriate Cimarex employee(s) and members of the IMT. The controlled electronic copy of this ERP shall be maintained electronically within The Response Group.

Distribution List

Copy #	Recipient:	Location
1	ESH	Tulsa
2	ESH	Tulsa
3	Tulsa Office - Receptionist	Tulsa
4	Midland Office	Midland
5	Field Office	Odessa
6	ESH	Midland
7	Field Office	Carlsbad
8	Field Office	Monahans
9	Field Office	Triple Crown
10	Field Office	El Reno
11	Field Office	Hinton
12	Field Office	Clinton
13	ESH	Tulsa
14	Field Office	Miami
15	Drilling & Completions	Tulsa
16	HR	Midland
17	Field Office	Elmore City
18	Field Office	Madill
19	ESH	Tulsa
20	ESH	Tulsa
21	ESH	Tulsa
22	Drilling	Tulsa
23	Legal	Denver
24	Treasury	Denver
25	Corporate	Denver
26	Controller	Denver
27	Corporate	Denver

Distribution List

Copy #	Recipient:	Location
28	Treasury	Denver
29	Executive	Denver
30	Operations	Tulsa
31	Production	Tulsa
32	ESH	Tulsa
33	Aviation	Denver Airport
34	Aviation	Tulsa Airport
35	Production	Midland
36	ESH	Tulsa
37	ESH	Tulsa
38	ESH	Tulsa
39	ESH	Midland
40	Production	Tulsa
41	Production	Midland
42	Production	Midland
43	Regulatory	Midland
44	Production	Midland
45	Production	Monahans
46	Production	Hobbs
47	IT	Tulsa
48	Production	Clinton
49	Production	Hinton
50	Production	Elmore City
51	Production	Madill
52	Drilling	Remote
53	Production	Midland
54	Drilling	Tulsa
55	Operations	Denver
56	Materials	EL Reno
57	Materials	EL Reno
58	Government Affairs	Denver
59	Drilling	Tulsa

Distribution List

Copy #	Recipient:	Location
60	Security	Denver
61	Midstream	Tulsa
62	Production	Tulsa
63	Executive	Denver
64	Production	Midland
65	ESH	Tulsa
66	Production	Midland
67	Field Office	Hobbs
68	Production	Midland
69	Marketing	Tulsa
70	Production	Tulsa
71	Production	Tulsa
72	Drilling & Completions	Midland
73	Legal	Denver
74	ESH	Tulsa
75	ESH	Tulsa
76	ESH	Midland
77	ESH	Tulsa
78	Production	Hinton
79	Accounting	Tulsa
80	Production	Midland

Section 3 Incident Levels

To properly respond to any emergency, incidents should be classified into one of three levels. The incident level is determined by the complexity of the incident, the risks to Cimarex personnel and the public, and the impact on the environment. These level classifications will be used to communicate to all personnel within the company.

The focus of this guidance presented in this section is on the organization, functions, roles, and responsibilities associated with IMT's developed to respond to emergencies.

Response Levels	
Level	**Ranking**
1	**Lowest**
2	**Intermediate**
3	**Highest**

3.1 Level 1 Incidents

These incidents are those that can be effectively managed within the Division without activating the Incident Management Team. Notification to Regional Manager and/or Department Vice President is determined by the nature of the incident.

LEVEL 1	✓	An incident without fire, recordable injuries, public involvement or media attention.
	✓	Spills that are not agency recordable.
	✓	An incidental release of a substance that can be absorbed, neutralized, or otherwise controlled at the time of a release by employees in the immediate area, that does not pose a potential safety or health hazard or threat to the environment, and that is not immediately reportable to the government.
	✓	Property damage less than $100,000.

3.2 Level 2 Incidents

These incidents are those that require notification to the Vice President Level. Additional corporate notification will be determined by the nature of the incident. Activate Incident Management Teams as appropriate.

LEVEL 2	✓	Recordable or serious injury to any person. (employee and/or contractor)
	✓	Any other incident or situation which may create a serious risk to life, property, or the environment.
	✓	Spills that are agency reportable, or releases, explosions, fires, or other incidents that are required to be immediately reported to any government agency.
	✓	Property damage from $100,000 to $250,000.
	✓	Incidents that may expose the company to significant liability, whether employees are involved or not (e.g. vehicle accident).
	✓	Fines, penalties, administrative orders, etc., received from any government agency.
	✓	Fires which are controlled and immediately extinguished.
	✓	Any event that affects the public, or is likely to attract adverse media coverage.
	✓	Incidents that affect others which are a concern for the Company (e.g. helicopter, marine, or facility incidents involving other operators).
	✓	Severe Weather Events.

3.3 Level 3 Incidents

These incidents are those which require notification to Senior Executive Management. Incident Management Teams may be activated depending on the nature of the incident.

LEVEL 3	✓	Death or injury to any person which has a substantial risk of permanent disability or impairment.
	✓	Major spills, toxic gas releases, or other significant environmental damage.
	✓	Blowouts.
	✓	Fires not immediately controlled and extinguished.
	✓	Natural Disasters
	✓	Property damage greater than $250,000.
	✓	Incidents that have potential for national / international media coverage.
	✓	Incidents that could significantly impact the company's cash flow and/or financial performance.

Section 4 - Response Procedures

The purpose of this section is to identify necessary response checklist/procedures to follow based on the type of incident that could occur at Cimarex locations. The checklists below are developed to allow the IMT the ability to make sound decisions during the initial response of an incident:

Response Procedures	
Subsection	Incident Type
4.1	Incident Detection
4.2	Employee Response to an Emergency Situation
4.3	Fire and Explosion • General Firefighting • Natural Gas Fire • Petroleum Fire • Flammable Liquid Fire • Explosion
4.4	Injury/Medical/Rescue
4.5	Spill or Release • Spill Detection • Initial Response • H_2S Release • Carbon Dioxide • Hazardous / Flammable Chemical
4.6	Security Incidents • Bomb Threat via Telephone • Suspicious Package
4.7	Traffic Control
4.8	Severe Weather • Thunderstorm / Lightening / High Winds • Flooding • Tornado • Winter Storm • Hurricane
4.9	Response Termination • Debriefing the Incident • Post-Incident Analysis • Critiquing the Incident

4.1 Incident Detection

The appropriate Cimarex field personnel are to conduct visual observations and routine inspections of locations and equipment to ensure proper operation thereof. In the event of an incident at a facility, immediate response and reporting is required. Failure to immediately report and respond to a spill or release can increase the environmental damage and subject Cimarex to unnecessary fines and enforcement actions.

4.2 Employee Response to an Emergency Situation

4.2.1 All Personnel

All Personnel	
Safety is of the utmost priority.	
✓	Always think before responding.
✓	Never rush into the scene of an incident.
✓	Always assess the situation first and know the hazards.
✓	Never perform any actions that may put your safety at risk or the safety of others.

4.2.2 First On-Scene

Initial Response to an Emergency Situation Checklist	
The first Cimarex employee who responds to the scene of an emergency should take the following action:	
✓	Move to a safe location if your personal safety may be in jeopardy.
✓	Never jeopardize your safety or that of another individual.
✓	Survey the scene – stay calm – park your vehicles away from the scene of the emergency and turn off the engine.
✓	If anyone is seriously injured, dial 911 immediately.
✓	Contact Foreman or Superintendent. Make sure that you speak to a person and never just leave a message.
✓	If flammable or explosive material has been released, secure all ignition sources including cellular phones and other communication devices.
✓	If safe, take prompt action to eliminate any dangers.
✓	If safe, provide medical aid for any injured personnel.
✓	If necessary, evacuate everyone from the danger area to a safe location or to an upwind location.
✓	Conduct head count and determine if everyone is accounted for.
✓	Secure the location – Block the road leading to the site with your truck or close the gate to control access. Once the Police or the Sheriff's department arrives, they can assist in monitoring the entrance and securing the location. The media does not have any legal right to be on the property.
✓	Promptly decide: • Whether or not the emergency can be readily brought under control and if immediate action can be taken. **Always use the correct PPE**. • If there is a spill and you are qualified to do so, deploy boom and absorbent material if available. Build containment areas to prevent water contamination and further pollution of the environment.
✓	Contact an approved/qualified spill response contractor if product has been released or discharged.
✓	Direct the initial phase of control, containment, and response until a supervisor arrives.
✓	For media inquiries, refer to **Section 7** of this ERP.

4.2.3 Field Supervisor / Foreman

Field Supervisor / Foreman	
✓	Upon learning of the emergency, determine the seriousness of the emergency and what backup personnel and/or equipment may be required and contact your superintendent. Ensure that you always speak to a responsible person and never just leave a message.
✓	Report directly to the scene of the emergency.
✓	Secure the entrance to the area, if not already done.
✓	Establish direct contact with pumpers, roustabouts and emergency responders.
✓	Inform emergency responders of any potentially dangerous situations (e.g. H_2S, toxic chemicals, etc.). Do not interfere with the work of any government emergency responders or law enforcement personnel.
✓	Notify and provide necessary information and/or reports to the appropriate governmental agencies.
✓	Relay information between management and governmental agencies on actions taken.
✓	Assist the ES&H Department with the investigation of the incident.

4.2.4 Superintendent

Superintendent	
✓	Contact your Manager and the ESH Department.
✓	Notify the appropriate Federal and State agencies. Ensure that these notifications are captured on the Notification Status Report. Refer to Federal and State reporting requirements located in **Section 5** of this ERP.
✓	For media inquiries, refer to **Section 7** of this ERP.
✓	Cooperate with the government agencies on site and, if safe to do so, provide tasking to available Cimarex personnel.

4.3 Fire and Explosion

4.3.1 General Firefighting Procedures

Product specific fire and explosion information can be obtained from the Safety Data Sheet (SDS).

General Firefighting Procedures	
No Employees are Expected to Fight a Major Fire	
✓	Call 911
✓	Appropriate personal protective equipment must be used.
✓	All personnel must first consider their safety and the safety of others.
✓	Extinguish a fire using a dry chemical extinguisher using the proper fire extinguisher procedures.
✓	Avoid getting trapped by the fire.
✓	Always fight a fire upwind (wind at your back).
✓	Never attempt to fight a fire around vessels containing flammable liquids.

4.3.2 Natural Gas Fire Procedures

Natural Gas Fire Procedures	
In the event of an uncontrolled natural gas release, caution should be exercised due to the possibility of nearby ignition sources.	
✓	Call 911
✓	Turn off vehicles when arriving on scene.
✓	Use extreme caution to avoid the possibility of introducing any ignition sources (e.g., cell phone and handheld radios).
✓	Do not attempt to put out fire while gas is still escaping.
✓	Only if it is safe to do so, shut off the source of the gas release.
✓	Once the source has been shut off, observe the area from a safe distance to ensure that all potential hazards have been addressed.
If the source of the gas release can't be safely shut off:	
✓	The area should be isolated (lease entrance gate(s) locked and guarded).
✓	The on-scene commander will determine the best plan to eliminate the gas release and the appropriate radius of exposure.
✓	Notify private residents within a ½ mile radius of the location.
✓	The on-scene commander will determine if area residents should evacuate the area.

4.3.3 Petroleum Fire Procedures

Petroleum Fire Procedures	
✓	Stop the source of the spill before extinguishing any fire, if safe to do so.
✓	Do not attempt to fight any fire that may endanger your personal safety.

A.3.4 Flammable Liquid Fire Procedures

Flammable Liquid Fire Procedures	
✓	Call 911.
✓	Use caution when approaching due to the possibility of intense heat.
✓	Only if it is safe to do so, locate and shut off the source of the liquid.
✓	Only attempt to extinguish if the fuel source has been shut off and adjacent equipment is cool, to prevent re-ignition.

4.3.5 Explosion

Explosions	
✓	Call 911.
✓	In the event of an explosion on a lease or at a facility, it will likely result in a fire.
✓	If the explosion results in a sustained natural gas leak and fire, review the Natural Gas Fire Procedures in **Section 4.3.1**.
✓	Be aware that multiple gas leaks and/or fires may result in an explosion. Caution should be used, and a complete containment plan established before proceeding to eliminate the possibility of secondary explosions.

4.4 Injury/Medical/Rescue

Injury/Medical/Rescue Checklist	
The following checklist can assist in preparing for and responding to workplace injuries.	
✓	Properly respond to any injured personnel by first making sure that the area is safe for others to properly respond.
✓	Notify emergency personnel and emergency services as soon as possible. This includes First Responders, ambulance services, hospitals, etc. as needed (see **Section 5** for phone list).
✓	Always use the proper PPE when responding.
✓	Only move an injured person to a safe location if an immediate threat to their life exists. If you need to move a person you suspect has a neck injury, keep their head and neck immobile and attempt to move them as one unit. Do the same if an injured person must be rolled over.
✓	Notify the appropriate level of supervision as soon as practical.
✓	Complete a formal report within 24 hours. Only document the facts.
✓	Follow-up on any actions identified by the incident or investigation.

Determining Hospitals	
One of the best ways to be prepared for a workplace injury or illness is to pre-identify hospitals that are properly equipped to deal with an injury that may result from the types of hazards involved with Cimarex operations. See **Section 5** for list of hospitals for each area of operations.	
The following may assist in determining any additional hospitals:	
✓	Types of special care units.
✓	Air ambulances service.
✓	Knowledge of hazards associated with oil and gas operations.
✓	Location.

4.5 Spill or Release

4.5.1 Spill Detection

In the event of a spill or release at a facility, prompt response and reporting is required. Failure to immediately report and respond to a spill or release can increase the environmental impact and subject Cimarex to fines and penalties.

4.5.2 Initial Response

Initial Response	
Notify Company Chain of Command	
✓	Refer to the Notification Flowchart in **Section 5** for reporting level.
Ensure Safety of Citizens & Response Personnel	
✓	Evaluate personal safety first.
✓	Identify hazard(s) of the spill or release by referencing the Safety Data Sheet (SDS).
✓	Establish site control (hot zone, warm zone, cold zone, and security).
✓	Consider evacuations as needed.
✓	Establish transportation restrictions.
✓	Monitor air in impacted areas.
✓	Develop site safety and health plan for response personnel once the Incident Management Team is activated.
✓	Ensure JSA and/or safety briefings are conducted.
Notify Spill Response Contractors	
✓	Notify response company for equipment and manpower as needed.
Stop and Contain the Spill (If Possible & Safe)	
✓	Complete emergency shutdown.
✓	Follow agreed upon site control zones.
✓	Deploy oil containment boom at the spill source and at appropriate collection areas, where safe and practical.
✓	Conduct recovery operations.
✓	Arrange for proper disposal.
Shut Off All Ignition Sources	
✓	No smoking.
✓	No cell phone or other devices using electrical charge.
✓	No open flames or portable lighting.

Initial Response	
Estimate Spill Volume	
✓	Retrieve available detailed information on the release (daily production, duration of release, etc.).
✓	Estimate volume of release.
✓	Survey spill site for dimensions of spill.
Notify Agencies of Spill Size	
✓	Use Agency Notification List to determine required agency notifications.
Notify Agencies If Spill Enters a Water Source	
✓	Verify release or spill entered navigable water.
✓	See **Section 5** to determine required notifications.
Foreman / Superintendent Response Actions	
✓	Mobilize material, equipment, and manpower to stop, contain, and clean up the spill.
✓	Report spill to the Regional Manager / Next Level Supervisor and the ESH Department.
✓	Notify appropriate regulatory agencies.
✓	Complete the appropriate incident reports. **See Section 10.1 Cimarex Spill Reporting Form**
Manager / Supervisor	
✓	If necessary and based on the magnitude and impacts of the spill, the Regional Manager / Superintendent will notify the appropriate Division Manager and VP of Production.
Deputy Incident Commander (Or Designee)	
✓	The Deputy Incident commander will notify the COO and the appropriate VP and will determine if the Incident Command Post (ICP) is to be activated and what IMT members should be notified.

4.5.3 H_2S Release

Hydrogen Sulfide (H_2S) Release	
✓	If a fixed or personal monitor alarm, the employee must assume that H_2S is present.
✓	The employee shall immediately leave the area by the safest route possible.
✓	Windsocks will help the employee determine the wind direction.
✓	Notify your Supervisor.
✓	The employee should proceed upwind or move crosswind and then upwind.
✓	H_2S will collect in low lying areas. Employees should also move uphill, where applicable.
✓	All employees will follow the Cimarex H_2S Policy & Procedures located in the Cimarex Safety & Health Manual.
Employee Responsibility	
✓	Evacuation routes.
✓	Location of plant alarms, if applicable.
✓	Designated assembly areas.
✓	Windsocks.
✓	Appropriate PPE & breathing apparatus.
Hazard Information	
Physical Description	H_2S is a colorless gas with an odor resembling rotten eggs at low concentrations. At high concentrations (150 to 500ppm), loss of the sense of smell can occur. Most people can smell H_2S at concentrations ranging from 0.1 ppm to 2 ppm. H_2S can deaden the sense of smell in a few minutes. At higher concentrations, respiratory paralysis and death may occur quickly.
Primary hazards	Toxic, flammable gas. Respiratory hazard. Moderately irritating to eyes, mucous membranes. A potentially hazardous volume of hydrogen sulfide is defined as one which could result in a ground level concentration of 100 ppm or higher where people are known or expected to be located. Concentrations of 100 ppm are immediately dangerous to life and health (IDLH).
Fire hazards/special firefighting considerations	H_2S concentration will be lethal at lower explosive limit, as 4% = 40,000 ppm. Gives off sulfur dioxide when burning.
Spill/release considerations	H_2S is heavier than air and can accumulate in low-lying areas. H_2S is corrosive to many materials in the presence of water or water vapor and is reactive with oxidizing agents

4.5.4 Carbon Dioxide Release

Carbon Dioxide Release Response	
✓	A release of CO_2 will be indicated by a white vapor cloud. There may be a loud noise associated with the release as the product may be pressurized as high as approximately 2000 psi.
✓	During upset conditions it is possible the H_2S concentration may increase.
✓	If entry into the vapor cloud is necessary to control the release; positive pressure breathing apparatus and personal protection from frostbite is required. This may include coats and gloves.
✓	Obtain a combination O_2/LEL/H_2S monitor to measure concentrations while performing work within a CO_2 vapor cloud. Concentrations of 100 ppm H_2S and/or ≤19.5% and ≥23.5% O_2 will require positive pressure breathing apparatus.
✓	It is extremely important not to confine CO_2. It may be better to let the CO_2 vent. Consult with your supervisor.
✓	Personnel noticing a CO_2 release shall notify field office personnel by radio, phone or in person.
✓	Field office personnel will announce over the radio or by cell phone the location and nature of the emergency and if additional assistance is required.
✓	Operator will: • If possible and safe to do so, block in the source of the release. • If this is not possible, the release will be blocked in at the closest source. • Do not attempt to close valves in the area of the release without full protective clothing and SCBA.
✓	A release of CO_2 could require notification to State and Federal agencies (**see Section 5**).

Hazard Information	
Primary Hazard	Respiratory hazard due to oxygen displacement. Frostbite or freeze burn may result from skin contact. Sour CO_2 may contain hazardous levels of hydrogen sulfide.
Exposure Limit	5,000 ppm
IDLH Level	50,000 ppm
Fire hazards/special firefighting considerations	Not Applicable
Spill/release considerations	Utilize hand-held gas detection to monitor oxygen levels

4.5.5 Hazardous/Flammable Chemicals

Hazardous Chemicals Release	
Leak or Spill from a Chemical Storage Vessel	
✓	Immediately contact the supervisor in accordance with the Notification Flowchart in **Section 5** and review the SDS for the chemical spilled. Pay particular attention to acute and chronic hazards the chemical may present, and the PPE required handling the material.
✓	The supervisor will contact the ESH Department, and he/she will provide guidance on spill control, containment, cleanup, regulatory required notification, and activation of chemical specific response plan.
✓	In case of flammable liquid(s) release, the supervisor shall contact the local Fire Department and the Cimarex Foreman and/or Superintendent
✓	Immediately evacuate the area affected by the chemical spill. Be alert for respiratory hazards. Stay upwind if possible. Wear respiratory protection equipment for protection from hazardous materials.
✓	Eliminate ignition sources if vapors could reach fired vessels, running vehicles, welding activity, cell phone, etc. The tank or vessel should be isolated.
✓	For undiked tanks or breached/overrun dikes, use hand tools and available earth moving equipment to construct containment dikes/dams to divert the spill and trap liquids where possible.
✓	Recoverable liquids will be collected by vacuum truck and will be pumped into another storage tank or vessel for storage prior to disposal.
✓	Chemical contaminated soil and debris will be cleaned up and disposed of in compliance with applicable state and federal regulations.
✓	A release of a flammable liquid could require notification to state and federal agencies (See **Section 5** for Notification and Contact Information).
Hazard Information	
Primary Flammable Liquid Inventor	• Crude Oil • Natural Gas/Natural Gas Liquids • Gasoline/Diesel Fuel • Various Well Treatment Fluids (see SDS at site)
Primary Hazard	Fire/explosion. Respiratory hazard due to oxygen displacement.
Exposure Limit	Varies with each product. Consult SDS
Fire hazards/special firefighting considerations	Vapor release/explosion. Use firefighting foam. Water spray will spread liquids and may be inefficient. (Use only if necessary to keep fuel from igniting).
Spill/release considerations	Possible skin irritation. Do not enter liquid spill. No cell phone or non-intrinsically safe devices use. Utilize hand-held gas detection equipment to monitor LEL/O_2 levels.
Disposal procedures	Consult with the ESH Department prior to disposing of any chemical waste.

4.6 Security Incidents

4.6.1 Bomb Threats Via Telephone

Bomb Threats Via Telephone	
The person receiving the call should:	
✓	Write down observations immediately.
✓	If available, record the observations on the Bomb Threat Checklist (Refer to **Section 10.2** of this ERP.)
✓	Attempt to keep the person on the line as long as possible.
✓	Call 911
✓	Try to determine the location of the bomb, what it looks like and when it is scheduled to detonate.
✓	Notify immediate supervisor without delay and provide them with the Bomb Threat Checklist (Refer to **Section 10.2** of this ERP.) or conversation notes.
Facility Supervisor	
✓	Based on available information, determine whether or not to evacuate the facility or area.
✓	If an evacuation is declared, specify evacuation routes.

4.6.2 Suspicious Packages

Suspicious Package at Facility/Location	
Personnel seeing a suspicious package.	
✓	Notify immediate supervisor.
✓	Do not touch or move any suspicious package.
Immediate supervisor.	
✓	Notify appropriate Cimarex personnel and building/landlord personnel.
✓	Contact local law enforcement immediately.
✓	Promptly evacuate everyone in the immediate vicinity.

4.7 Traffic Control

The purpose of traffic control in an emergency is to keep people off the location.

- Restrict Access
- Protect the public.
- Protect the employees and responders.
- Control media access.
- Ensure safe entries/exit routes.

Traffic Control Procedures	
✓	Establish control at the entrance to keep unauthorized personnel from entering the area.
✓	In cooperation with law enforcement agencies, the supervisor in charge will assist in directing the setting up of road blocks.
✓	If a private road is involved, the facility or lease road may be closed.
If an emergency occurs away from the lease and endangers a public highway, such as a pipeline break at a road crossing:	
✓	The proper law enforcement agency shall be notified as soon as possible.
✓	If there is a real danger to the traveling public, the roadway should be blocked and all traffic warned of the danger.

4.8 Severe Weather

The Severe Weather Checklist below should be used during all severe weather situations.

Weather Monitoring	
✓	Radios and scanners can be used to monitor severe weather reports provided by local emergency response frequencies and radio stations.
✓	When severe weather approaches, scanners and radios should be turned on and monitored.
✓	All personnel should be notified of severe storms in the area. All personnel can then assist in the weather watch as they go about their regular duties.

4.8.1 Thunderstorms / Lighting / High Winds

Thunderstorms / Lighting / High Winds Checklist	
This checklist identifies actions to be taken when threatened by thunderstorms, producing lightning or high winds.	
✓	Upon notification by weather monitoring of impending severe weather conditions, notify the immediate supervisor and/or any contractors on location of the situation.
✓	Personnel will be instructed to shut down all nonessential activities and take shelter inside a permanent building until the storm has passed.
✓	Immediately bring personnel off vessels, tanks, scaffolding, pipe racks, and other elevated work areas. Suspend product loading operations and close all tank openings.
✓	Take shelter until the storm has passed.

4.8.2 Flooding

Flooding Checklist	
✓	Evacuate immediately, if advised to do so.
✓	Avoid areas that are prone to flooding (e.g., dips, low spots, canyons, and washes).
✓	Avoid areas that are already flooded.
✓	Never walk through a flooded area. As little as six inches of flowing water can sweep a person off their feet.
✓	Do not drive through a flooded area. Only two feet of water can lift and wash away a truck.
✓	If a vehicle stalls in a flooded area, abandon the vehicle and move to higher ground.
✓	Do not park vehicles near streams and washes, especially during severe storm warnings.

4.8.3 Tornado

Tornado Checklist	
Tornado Watch indicates that conditions are favorable for development of a tornado.	
✓	Be on alert.
✓	If funnel-shaped clouds are sighted, call the local field office and follow procedures below.
Tornado Warning indicates that a tornado has been spotted in the area. Take protective action. If a tornado strike is imminent, personnel should take shelter immediately.	
✓	Unless an actual tornado is spotted, notification will probably come over the Sheriff or Fire Department's radio frequency first.
✓	The on-site supervisor or contractor in charge will make the decision to initiate an emergency shut-in.
✓	**If seeking shelter inside a building**, move to the interior, away from windows. Seek protection from falling or flying objects by sheltering in a closet, bathroom, under a table or desk, etc.
✓	**If seeking shelter outside**, move away from process areas, product storage, or other areas where release of hazardous materials or hazardous energy may be possible due to storm damage. If in open areas, move to a low-lying area, such as a road ditch, culvert, etc. Lie face down and cover your head to protect yourself from flying debris.
✓	**If driving in open country,** move away from the approaching tornado at right angles if possible. If there is not time to find shelter, abandon your vehicle and lie flat in a ditch or depression. Avoid areas with large trees and power lines.
✓	If the area is hit by a tornado, be aware of escaping gas, and possibly a fire.

4.8.4 Winter Storm

A winter storm may include snow or sleet, or a rainstorm where ground temperatures are cold enough to allow ice to form (i.e., freezing rain).

Winter Storm Checklist	
This checklist identifies actions to be taken when company offices or facilities are threatened by a winter storm.	
✓	During the winter storm season, the on-site supervisor or contractor in charge, with the help of the field office personnel will monitor weather forecasts and notify field personnel via 2-way radio or cell phone of any winter storm watches or warnings.
✓	If a winter storm strikes and storm severity warrants field evacuation, all personnel will report to the field office for a head count. The drilling and/or production superintendent will ensure that all persons are accounted for prior to closing down operations. Individuals traveling to their residence will telephone and notify the on-duty supervisor of their safe arrival home.
✓	In the event an individual becomes stranded in the field or on the road, stay with the vehicle and follow winter survival rules until help arrives. Do not attempt to travel on foot until it is safe to do so.
✓	After the storm, facilities will be checked with the aid of four-wheel drive vehicles. All personnel shall maintain 2-way radio or cell phone communication with the office when in the field during or immediately after a storm.

4.8.5 Hurricanes

Hurricane Season is June 1st to November 30th.

Hurricanes	
If a hurricane warning is issued, the following steps need to be taken:	
✓	Review evacuation plans.
✓	Notify all employees of the hurricane condition.
✓	Secure all outside equipment that can be blown away.
✓	Fuel up all vehicles.
✓	Check all first aid kits and emergency supplies.
✓	Check batteries in radios and flashlights.
✓	Move all trucks and/or equipment from flood prone areas.
✓	Review and implement hurricane plan/procedures.
After the hurricane has passed:	
✓	Do not start damage assessment until the National Weather Service declares the storm is over.

4.9 Response Termination

Termination activities are divided into three phases: debriefing the incident, post-incident analysis, and critiquing the incident. The extent to which these phases are undertaken depends on the nature and magnitude of the spill or release. Even a small product release could elicit very detailed termination activities. For example, a release of H2S with subsequent employee or public negative impact. Additionally, some spills or releases trigger outside agency reporting. These events would trigger the formal termination procedures outlined in this section.

4.9.1 Debriefing the Incident

Debriefing the Incident	
✓	Debriefings should begin as soon as the "emergency" phase of the operation is completed. Ideally, this should be before first responders leave the scene, and it should include the hazmat response team, sector officers, and other key players such as public information officers and agency representatives who the IC determines would benefit from being involved.
✓	Inform responders exactly what hazardous materials they were (possibly) exposed to and the signs and symptoms.
✓	Identify equipment damage and unsafe conditions requiring immediate attention or isolation for further evaluation.
✓	Assign information-gathering responsibilities for a Post-Incident Analysis (PIA) and critique.
✓	Summarize the activities performed by each sector, including topics for follow-up.
Safety meeting attendance forms and or memoranda may be utilized to document the debriefing.	

4.9.2 Post-Incident Analysis

Post-Incident Analysis	
✓	PIA is the detailed, step-by-step review of the incident to establish a clear picture of the events that took place during the incident. It is conducted to establish a clear picture of the emergency response for further study.
✓	The PIA is not the same as investigations conducted to establish the probable cause of the accident for administrative, civil, or criminal proceedings. Those are usually conducted utilizing root cause or hazard and operability methodologies. One person or (or office) should be designated to collect information about the response during the debriefing. Additional data may be obtained from Command post logs, incident reports and eyewitness interpretations.
✓	Once all available data has been assembled and a rough draft report developed, the entire package should be reviewed by key responders to verify the available facts are arranged properly and verified. The PIA should focus on four key topics: *Command and Control, Tactical Operations, Resources and Support Services*.
✓	***Command and Control*** – Was command established and sectors organized? Did information flow from operations personnel through Sector Officers to the Incident Commander? Were response objectives communicated to the personnel expected to carry them out?
✓	***Tactical Operations*** – Were the tactical options ordered by the IC and implemented by emergency response personnel effective? What worked? What did not?
✓	***Resources*** – Were the resources adequate for the job? Are improvements needed to apparatus and/or equipment? Were personnel trained to do the job effectively?
✓	***Support Services*** – Were the support services received from other organizations adequate? What is required to bring support to the desired level?

4.9.3 Critiquing the Incident

A commitment to critique all hazardous material responses will improve IMT performance by improving efficiency. Use the tool as a valuable learning experience (everyone came to the incident with good intentions). A good critique promotes:

- Trust in the response system as being self-correcting.
- Willingness to cooperate through teamwork.
- Continuing training of skills and techniques.
- Pre-planning for significant incidents.
- Sharing information between response agencies.

Critique Format	
A critique leader is assigned. This can be anyone who is comfortable and effective working in front of a group. The critique leader should:	
✓	Control the critique. Introduce the players and procedures. Keep it moving and end on schedule.
✓	Ensure that specific questions receive detailed answers.
✓	Ensure that all participants follow the critique rules.
✓	Ensure that each operational group presents their observations.
✓	Keep notes of important points.
✓	Sum up the lessons learned.
✓	Follow up.
✓	Following the critique, forward the written comments to management. They should highlight suggestions for improving response capabilities and alternative solutions.
✓	When larger incidents are involved or injuries have occurred, formal reports shall be circulated so that everyone in the response system can understand the “lessons learned.”

Section 5 Notifications and Contact Information

5.1 Notification Quick Reference

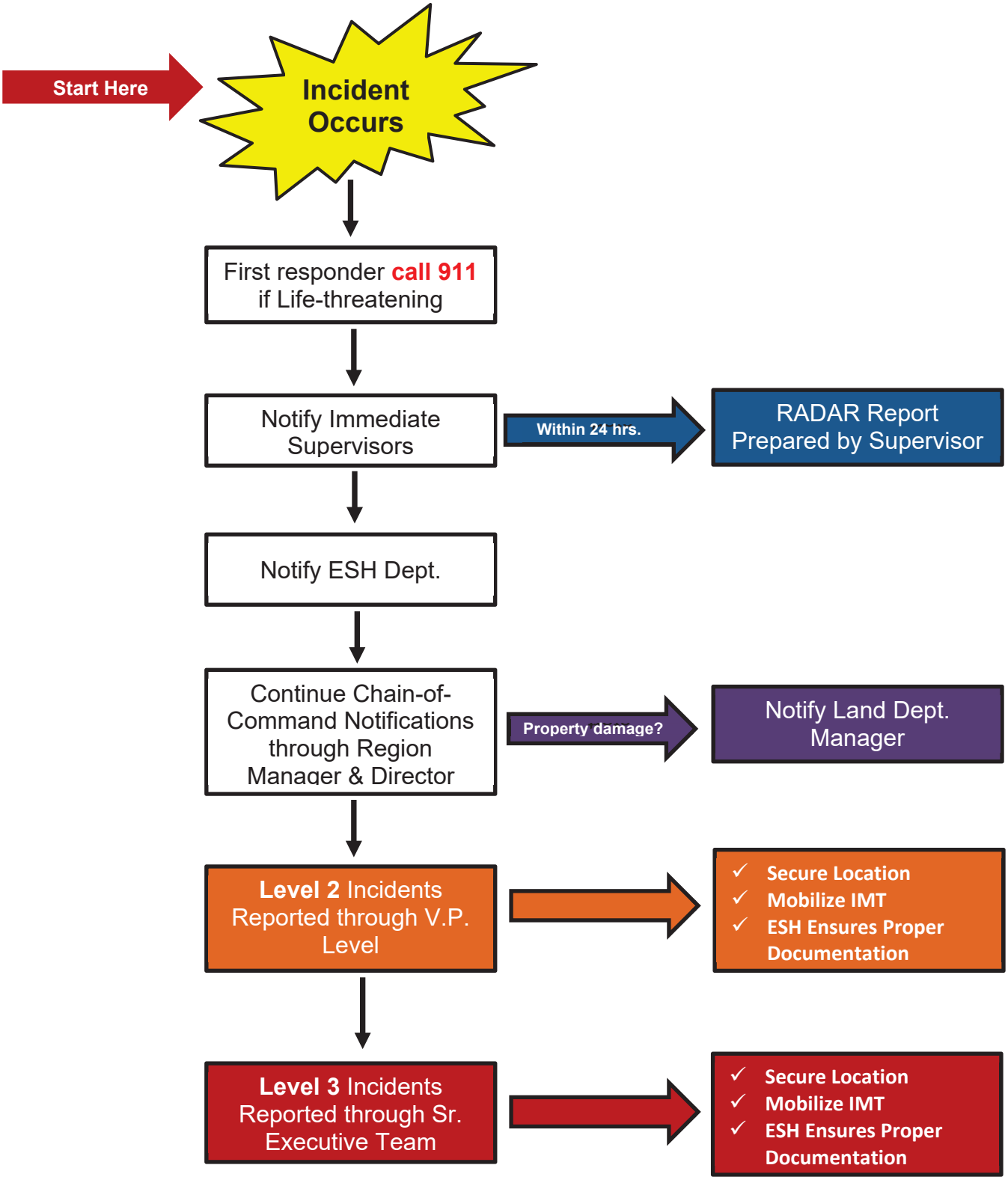
Cimarex Energy Notification Quick List							
✓	Type*	Notifications	First Name	Last Name	Contact Number	Action	Date / Time
Internal Notifications							
	R	Immediate Supervisor				RADAR Report prepared by Supervisor	/
	R	ESH Department	Stuart	Wittenbach	918-404-1084	Continue Notification Process	/
Oil Spill Removal Organizations							
	R	Acme Boom & Equipment			918-836-7184	Call, as incident need dictates, to activate OSROs	/
	R	Dillon Environmental			580-226-5303		/
	R	NTG			432-685-3898		
	R	Talon LPE			575-746-8768		/
	R	Tetra Tech			432-682-4559		
IAP Support							
	R	The Response Group			281-880-5000	Call for spill trajectory analysis and IAP support	/
External Notifications							
	Type*	Agency	Contact		When to Notify		Date/Time
	R	National Response Center - NRC	800-424-8802 202-267-2675		• Oil Discharge/Release over RQ • Sheen on surface of water or shoreline • Notify as soon as practical		/
	C	Environmental Protection Agency – EPA Region 6	866-372-7745 800-667-6063		• Any unanticipated bypass exceeding limitation in permit • Any upset condition which exceeds in permit • Violation of maximum daily discharge limitation or daily minimum toxicity limitation • Chemical spills of a reportable quantity • Notify as soon as practical		/

Cimarex Energy Notification Quick List					
	Type*	Agency	Contact	When to Notify	Date/Time
	R	Occupations Safety and Health Administration	800-321-6742	Any accident involving an employee in which a serious injury, illness, or death occurs	/
	C	DOT Pipeline and Hazardous Material Safety Administration	202-366-4433	Initial Notification made with call to NRC	/
	C	Chemical Safety and Hazard Investigation Board	202-261-7600	Initial Notification mage with call to NRC	/
	C	Bureau of Land Management	225-389-5073	Any spill on Federal and Indian oil and gas leases or State or private land leases within a federally supervised unit or communalized areas	/
	R	New Mexico Environmental Department	505-827-9329	A discharge of any material in a quantity that may be detrimental to human health, animal/plant life, cause property damage, etc.	/
	R	New Mexico EMNRD Department of Oil Conservation	575-370-3186	Notify within 24-hrs of a release.	/
	C	New Mexico Pipeline Safety Bureau	505-490-2375	Initial notification made with call to NRC.	/
	R	Oklahoma Corporation Commission Oil and Gas Division	405-521-2240	Notify within 24-hrs any spill to land of 10 or more bbl. Of any substance used or produces in petroleum exploration and/or production	/
	R	Oklahoma Department of Environmental Quality	800-522-0206	Any spill that affects surface water in the watershed of a water supply lake.	/
	R	Texas Spill Reporting Hotline	800-832-8224	All environmental emergencies, discharge, spill, or air release	/
	R	Texas Railroad Commission	844-773-0305	Immediate notice of a fire, leak, spill, or break.	
	R	Local Agencies	See Section 5.6 and 5.7	--	
	R	LEPCs	See Section 5.6 and 5.7	--	

R – Required Notification
C – Courtesy Notification

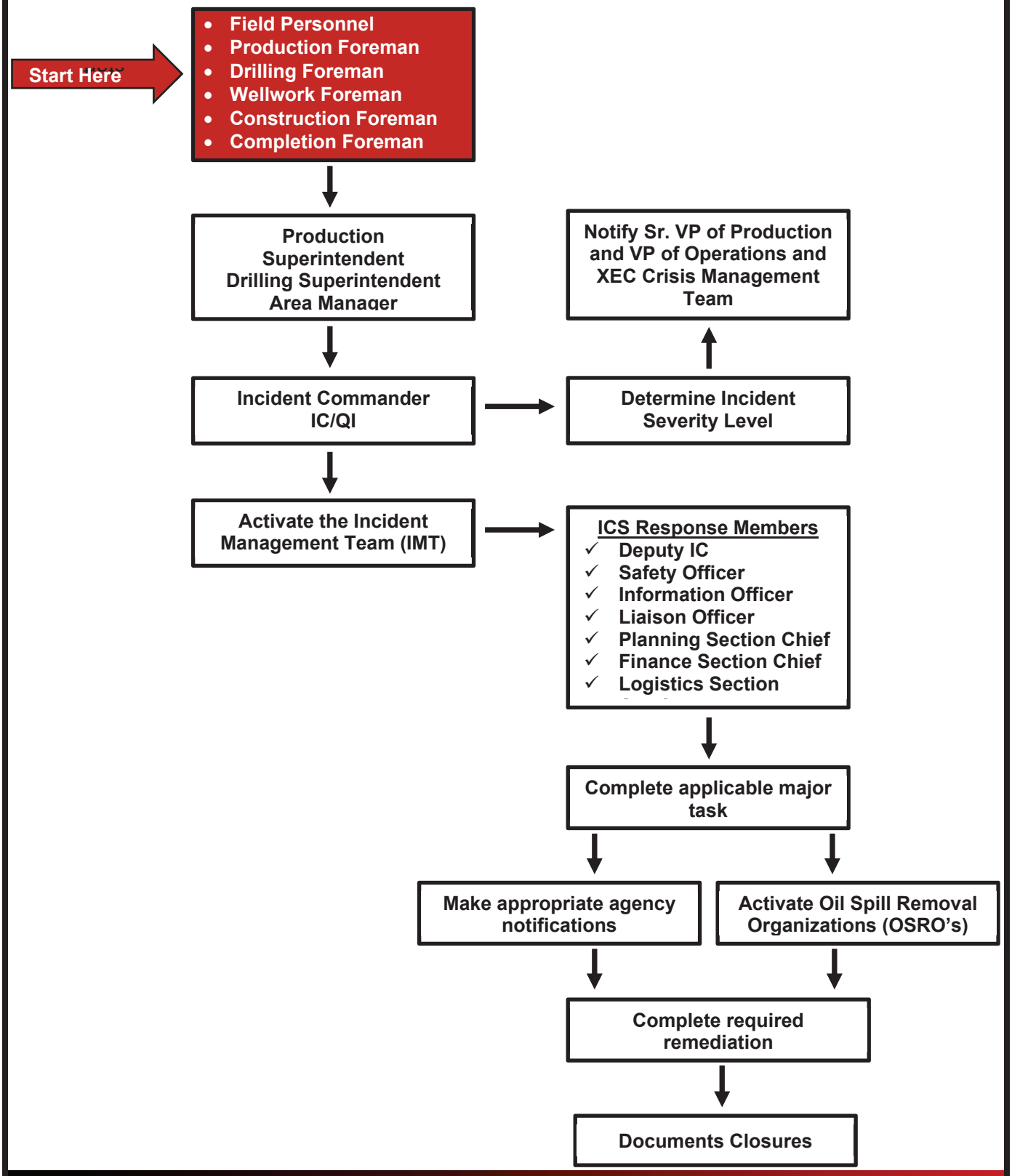
5.2 Notification Flowcharts

5.2.1 XEC Internal Notification Flowchart



5.2.2 Spill Notification Flowchart

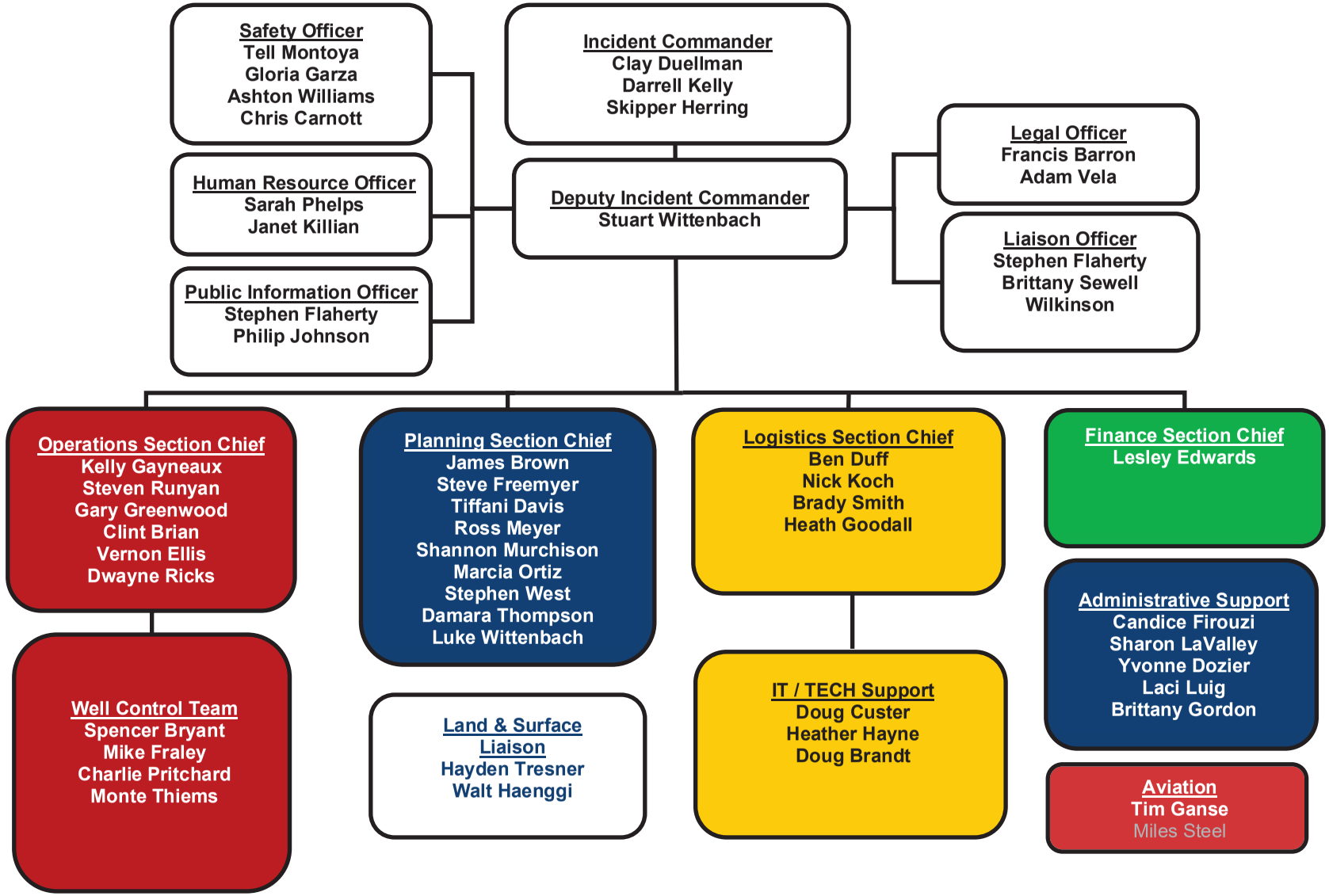
For Incidents that exceeds agency threshold and/or enters navigable waters.



5.3 Emergency Management Contacts

Cimarex Energy Contact List		
Name/Position	Office	Cell
Steve Bell *Exec. V.P. Bus. Dev. & Land*	303-285-4902	303-699-7135
Francis Barron *Sr.V.P., General Counsel*	303-285-4968	303-520-7411
Adam Vela *Assistant General Counsel*	303-285-4974	720-427-4568
Wayne Chang *V.P. Marketing*	918-295-1691	405-315-1905
Tom McCoy *Sr. V.P. Production*	918-295-1775	918-671-6429
Blake Sirgo *V.P. Operations*	303-285-4964	432-413-0994
Philip Johnson *V.P. Production*	918-295-1812	918-606-2176
Stephen Flaherty *V.P. Govt. & External Affairs*	303-335-1311	303-483-3355
Clay Duellman *Director, Production*	918-295-1794	972-998-9183
Skipper Herring *Director, Drilling and Completions*	918-699-5768	918-607-1248
Stuart Wittenbach *ESH Director*	918-560-7257	918-404-1084
Marsh Insurance		
Jacob Lorenz *Client Executive*	720-966-4663	720-966-4663
Yvonne Turney *Client Executive*	713-276-8569	713-560-7824
Dan Chilton *Claims Advocate*	303-308-4594	303-589-7063

5.4 Incident Management Team



Incident Management Team Contact Information		
Name	Office	Cell
Incident Commander		
Clay Duellman	918-295-1794	972-998-9183
Stuart Wittenbach (Deputy)	918-560-7257	918-404-1084
Darrell Kelly	918-560-7116	405-203-4964
Skipper Herring	918-699-5768	918-607-1248
Safety Officer		
Tell Montoya	432-620-1911	432-701-3461
Gloria Garza	432-620-1963	432-234-3204
Ashton Williams	918-699-5725	918-500-6913
Chris Carnott	918-560-7517	405-638-0915
Human Resource Officer		
Sarah Phelps	918-560-7178	918-625-3429
Janet Killian	432-620-1918	432-770-3115
Public Information Officer		
Stephen Flaherty	303-335-1311	303-483-3355
Philip Johnson	918-295-1812	918-606-2176
Liaison Officer		
Stephen Flaherty	303-335-1311	303-483-3355
Brittany Sewell Wilkinson	918-560-7052	918-695-3916
Legal Officer		
Francis Barron	303-285-4968	303-520-7411
Adam Vela	303-285-4974	720-427-4568
Land & Surface Liaison		
Hayden Tresner (Anadarko)	918-560-7080	432-413-1560
Walt Haenggi (Permian)	432-620-1965	432-620-1965
Operations Section Chief		
Kelly Gayneaux	432-620-1957	432-254-0636
Steven Runyan	432-620-1954	432-634-5031
Gary Greenwood	432-571-7712	505-287-1788
Clint Brian	918-560-7120	918-497-0200
Vernon Ellis	432-620-1976	432-312-5743
Dwayne Ricks	918-560-7268	580-774-8297
Well Control Team		
Spencer Bryant	432-620-7885	580-768-9995
Mike Fraley	432-620-1985	575-390-9097
Charlie Pritchard	432-620-1975	432-238-7084
Monte Thiems	918-295-1791	918-607-6030

Incident Management Team Contact Information		
Name	Office	Cell
Aviation		
Tim Ganse		303-898-6834
Miles Steel (backup contact only)		303-596-8052
Planning Section Chief		
James Brown	918-560-7231	918-805-6670
Steve Freemyer	918-560-7266	918-439-6420
Tiffani Davis	918-560-7029	918-637-0348
Ross Meyer	918-295-1624	918-850-7677
Shannon Murchison	918-560-7165	
Marcia Ortiz	918-560-7290	918-805-6330
Stephen West	918-295-1660	
Damara Thompson	918-295-1817	918-728-5694
Luke Wittenbach	432-620-1900	918-397-0475
Administrative Support Team		
Candice Firouzi	918-295-1645	918-606-4838
Sharon LaValley	918-295-1673	918-639-4157
Yvonne Dozier	918-295-1758	918-633-9911
Laci Luig	432-571-7810	432-425-0434
Brittany Gordon	432-620-1960	432-528-3854
Logistics Section Chief		
Ben Duff	590-490-6440	580-795-3391
Nick Koch	432-210-0377	432-620-1948
Brady Smith	505-506-7116	432-571-7711
Heath Goodall	918-508-9158	918-508-9158
IT / TECH Support Team		
Doug Custer	918-560-7058	918-409-9190
Heather Hayne	918-295-1655	918-277-2301
Doug Brandt	918-295-1834	918-688-8286
Finance Section Chief		
Lesley Edwards	918-295-1793	918-645-8209

5.5 Corporate Offices

5.5.1 Denver, Colorado Office

5.5.1.1 Cimarex Location

Cimarex Corporate Office Denver, CO		
Address	Phone	Fax
1700 Lincoln Street, Suite 3700 Denver, CO 80203	303-295-3995	303-295-3494

5.5.1.2 Local Agencies

Local Agencies		
Contact	Location	Phone
Fire Departments		
Denver Fire Department	745 West Colfax Ave Denver, CO 80204	720-913-3473
Police Departments		
Denver Police Department	1331 Cherokee St. Denver, CO 80204-4507	9-1-1 (Emergency) 720-913-2000

5.5.1.3 Local Emergency Planning Committee

Local Emergency Planning Committee		
Contact	Location	Phone
Office of Emergency Management & Homeland Security	1437 Bannock St. Room 3 City and County Bldg. Denver, CO 80202	720-865-7603 720-865-7600

5.5.1.4 Medical Services

Hospital / Medical Care Facilities			
Contact	Location	Details	Phone
Denver Health	77 Bannock St Denver, CO 80204	Trauma Center	303-436-6000
St Joseph Hospital	1375 E 19th Ave Denver, CO 80218	Emergency Care	303-837-7111
Select Specialty Hospital	2525 S Downing St, 3rd Fl Denver, CO 80210	Long Term Care & Rehabilitation	303-563-3700
Rose Medical Center	4567 E 9th Ave Denver CO, 80220	General / Surgical Hospital	303-320-2121
Porter Adventist Hospital	2525 S Downing St Denver, CO 80210	Emergency Care	303-778-1955
Presbyterian-St. Luke's Medical Center	1719 E 19th Ave Denver, CO 80218	Emergency Care	303-839-6000

5.5.2 Tulsa, Oklahoma Office

5.5.2.1 Cimarex Location

Cimarex Corporate Office Tulsa, OK		
Address	Phone	Fax
202 S. Cheyenne Suite 1000 Tulsa, OK 74103-3001	918-585-1100	918-585-1133

5.5.2.2 Fire Departments

Local Agencies		
Contact	Location	Phone
Tulsa Fire Department	175 E. 2nd Street, 5th Floor Tulsa, OK	918-596-9444
Fire Marshal's Office	175 E. 2nd Street, 5th Floor Tulsa, OK	918-596-9422

5.5.2.3 Law Enforcement

Law Enforcement		
Contact	Location	Phone
Tulsa Police Department	600 Civic Center Tulsa, OK 74103	9-1-1 (Emergency) 918-596-9222
Mingo Valley Division	10122 E 11th St. Tulsa, OK 74128	918-586-6000
Riverside Division	7515 S. Riverside Dr. Tulsa, OK 74136	918-596-1100
Gilcrease Division	3436 N. Delaware Ave. Tulsa, OK 74110	918-591-4100

5.5.2.4 Local Emergency Planning Committees

Local Emergency Planning Committee		
Contact	Location	Phone
Tulsa LEPC	600 Civic Center – EOC Tulsa, OK 74103	918-596-2033

5.5.2.5 Medical Services

Hospital / Medical Care Facilities			
Contact	Location	Details	Phone
Hillcrest Medical Center	1120 S Utica Ave Tulsa, OK 74104	Emergency Medical Care	918-579-1000
Select Specialty Hospital	1125 S Trenton St Ste 3 Tulsa, OK 74120	Acute Care	918-932-3700
St. John Medical Center	1923 Utica Ave Tulsa, OK 74104	Urgent Care Center	918-744-2345
St Francis Hospital	11212 E 48th St Tulsa OK 74146	Trauma Center	918-494-2200
OSU Medical Center	744 W 9th St. Tulsa, OK 74127	Emergency Medical Service	918-863-2277

5.6 Mid Continent

5.6.1 Cimarex Locations

Cimarex Locations		
Address	Phone	Fax
Clinton, OK		
1723 Marshall Rd P.O. Box 1329 Clinton, OK 73601	580-323-4501	405-543-1449
El Reno, OK		
3503 E. Jensen Road El Reno, OK 73036	405-262-2966	405-262-2969
Elmore City, OK		
30191 N. County Road 3120 Elmore City, OK 73433-9163	580-788-4122	405-543-1451
CANA (Geary, OK)		
26170 Hwy 281 Spur Geary, OK 73040	405-901-0112	405-543-1451
Madill, Ok		
217 Plaza, P.O. Box 340 Madill, OK 73446	580-795-3391	580-795-7014

5.6.2 County Emergency Management Agencies

County Emergency Management Agencies	
Contact	Phone
Blaine County Emergency Management	580-623-8566
Bryan County / City of Durant Emergency Management	580-924-3661 580-924-2087
Caddo County Emergency Management	405-247-5700
Canadian County Emergency Management	405-295-6077 Cell: 405-651-6600
Carnegie Emergency Management	580-654-1004
Carter County Emergency Management	580-223-7937
City of Shawnee / Pottawatomie County Emergency Management	405-273-5272
Cleveland County Emergency Management	405- 366-0249
Creek County Emergency Management	918-227-6358 Cell: 918-520-0227
Custer County Emergency Management	580-323-4105
Garvin County Emergency Management	405- 238-1148
Grady County Emergency Management	405-222-2339

County Emergency Management Agencies	
Contact	Phone
Grayson County Emergency Management	903-813-4217
Haskell County Emergency Management	918-967-4488
Hemphill County Emergency Management	806-679-4774
Hughes County Emergency Management (City of Holdenville)	405-379-8197
Johnston County Emergency Management	580-371-0174
Kingfisher County Emergency Management	405-375-5662
Kiowa County Emergency Management	580-726-2629
Logan County Emergency Management	405-282-0494
Marshall County Emergency Management	580-672-5115
McClain County Emergency Management	405-288-2064
McIntosh County Emergency Management	918-689-3441
Murray County Emergency Management	580-622-3911
Osage Creek Emergency Management	918-287-2285
Pawnee County Emergency Management	918-762-3741
Payne County Emergency Management	405-533-6875
Pittsburg County Emergency Management	918-423-5655
Pontotoc County Emergency Management	580-421-7777
Pottawatomie County / City of Shawnee Emergency Management	405-273-5272
Roberts County Emergency Management	806-468-1310
Roger Mills County Emergency Management	580-497-3524
Seminole County Emergency Management	405-220-2557
Stephens County Emergency Management	580-255-3411
Washita County Emergency Management	580-832-3356

5.6.3 Fire Departments

Fire Departments		
Contact	Location	Phone
Oklahoma		
Ardmore Fire Department	115 N Rockford Rd, Ardmore, OK 73401	580.221.2550
Bessie Fire Department	714 Main St Bessie, OK 73622	580-337-3333
Canadian Fire Department	302 NE Tignor St Canadian, OK 74425	806-323-6484
Canadian Valley (Cedar Lake)	11150 Cedar Rd Hinton, OK 73047	405-542-3340
Carnegie Fire Department	18 N Carnrgie St Carnegie, OK	580-654-1027
Cheyenne Fire Department	700 Clay Ave Cheyenne, OK 73628	580-497-3368
Clinton Fire Department	212 4th St Clinton, OK 73601	580-323-2298
Cordell Fire Department	203 Clay St Cordell, OK	580-832-3449
El Reno Fire Department	2707 Faith Ave El Reno, OK 73036	405-262-2949
Elk City Fire Department	303 W 5th St Elk City, OK 73644	580-225-0500
Pernell Volunteer Fire Department	19039 Ecr 1700 Elmore City, OK 73433	580-788-2340
Geary Rural Fire & Rescue	118 NW 1st St Geary, OK 73040	405-884-2313
Hennepin Fire Department	P.O. Box 36 Hennepin, OK 73444	580-369-2121
Hinton Fire Department	115 S Broadway Hinton, OK 73047	405-542-3311
Hydro Fire Department	109 W 5th St Hydro, OK 73048	405-663-2222
Lone Grove Fire Department	16729 US-70, Lone Grove, OK 73443	580-657-4196
Madill Fire Department	200 North 2nd Street Madill, OK 73446	580-795-2577
Pauls Valley Fire Department	201 Walnut Street Pauls Valley, OK 73075	405-238-5171
Sayre Fire Department	1000 N 4th St Sayre, OK 73662	580-928-2140
Watonga Fire Department	111 N Weigel Ave Watonga, OK 73772	580-623-7378
Weatherford Fire Department	118 N Kansas St Weatherford, OK 73096	580-772-5345

Fire Departments		
Contact	Location	Phone
Texas		
Pampa Fire Department	203 W Foster Ave Pampa, TX 79065	806-669-5800
Shamrock Fire Department	110 E 4th St Shamrock, TX	806-256-2136
Wheeler Fire Department	304 S Alan L Bean Dr Wheeler, TX	806-826-3777

5.6.4 Law Enforcement

Law Enforcement		
Contact	Location	Phone
Oklahoma		
Anadarko Police Department	201 N 1st St Anadarko, OK 73005	405-247-2411
Ardmore Police Department	23 S Washington St, Ardmore, OK 73401	580-223-1212
Blaine County Sheriff's Office	205 N Burford Ave Watonga, OK 73772	580-623-5111
Bryan County Sheriff's Office	402 W Evergreen St Durant, OK 74701	580-924-3000
Caddo County, OK Sheriff	110 SW 2nd St Anadarko, OK 73005y	405-247-6666
Canadian County Sheriff	208 W Rogers El Reno, OK 73036	405-262-3434
Carnegie Police Department	17 N Broadway Ave St Carnegie, OK 73015	580-654-1444
Carter County Sheriff	100 S Washington St, Ardmore, OK 73401	580-223-6014
Cleveland County Sheriff's Office	10496-10648 US-77 Slaughterville, OK 73051	405-701-8888
Clinton Highway Patrol	2225 W Gary Blvd Clinton, OK 73601	580-323-2424
Clinton City Police	401 W Gary Blvd Clinton, OK 73601	580-323-2323
Creek County Sheriff's Office	301 E Lee Ave Sapulpa, OK 74066	918-224-4964
Custer County Sheriff	300 N 7th Ave Arapaho, OK 73620	580-323-1616
Dewey County Sheriff's Office	125 Broadway Taloga, OK 73667	580-328-5558
Elk City Police	422 E 3rd St Elk City, OK 73644	580-225-1212

Law Enforcement

Contact	Location	Phone
Elmore City Police Department	106 Main St Elmore City, OK 73433	580-788-2340
Garvin County Sheriff	201 W Grant Ave #4 Pauls Valley, OK 73075	405-238-7591, Non-emergency: 405-238-9900
Grady County Sheriff's Office	302 N 3rd St Chickasha OK	405-224-0984
Haskell County Sheriff's Office	1304 Industrial Rd Stigler OK 74462	918-967-2400
Hinton Police Department	199 E Main St Hinton, OK 73047	405-542-3244
Hughes County Sheriff's Office	200 N Broadway St #1 Holdenville, OK 74848	405-379-2203
Johnston County Sheriff's Office	110 N Capitol Ave Tishomingo, OK 73460	580-371-2646
Kingfisher County Sheriff's Office	119 S Main St Kingfisher, Ok 73750	405-375-4242
Kiowa County Sheriff's Office	301 S Jefferson St Hobart, OK 73651	580-726-3565
Lawton Highway Patrol	8 SE &th St Lawton, OK 73501	580-353-0783
Logan County Sheriff's Office	216 S Broad Guthrie, OK 73044	405-282-4100
Marshall County Sheriff	207 North 4th Street Madill, OK 73446	580-795-2221
McClain County Sheriff's Office	121 N 2nd Ave Purcell, OK 73080	405-527-2141
McIntosh County Sheriff's Office	1425 Industrial Dr Eufaula, OK 74432	918-689-2526
Mountain View Police Department	248 Main St Mountain View, OK	580-347-2240
Murray County Sheriff's Office	700 W 10th ST Sulphur, OK 73086	580-622-5106
Oklahoma County Sheriff's Office	2101 NE 36th St Oklahoma City	405-713-1000
Oklahoma Highway Patrol - OKC	3600 N. MLK Blvd Oklahoma City, OK	405-425-2424
Oklahoma Highway Patrol - Ardmore	2001 Veterans Blvd #2A Ardmore, OK 73401	580-223-8800
Oklahoma Highway Patrol - Durant	3104 Cal Albert Durant, OK 74701	580-924-2601
Osage Creek Sheriff's Office	900St. Paul Pawhuska, OK 74056	918-287-3131 888-287-3150
Pawnee County Sheriff	500 Harrison St Pawnee. OK 74058	918-762-2565

Law Enforcement		
Contact	Location	Phone
Payne County Sheriff	606 S Hubbard St #106 Stillwater, OK 74074	405-372-4522
Pittsburg County Sheriff	1210 N West St McAlester OK 74501	918-423-5858
Pontotoc County Sheriff	177 W 13th St Ada, OK 74820	580-332-4169
Pottawatomie County Sheriff	325 N Broadway Ave Shawnee, OK 74801	405-273-1727
Roger Mills County Sheriff's Office	Courthouse Sq Cheyenne, OK	580-497-2417
Sayre Police Department	1000 N 4th St Sayre, OK 73662	580-928-2122
Seminole County Sheriff's Office	211 E 2nd St Wewoka, OK 74884	405-257-5445
Stephens County Sheriff	101 S 11th St #104 Duncan, OK 73533	508-255-3131
Washita County Sheriff	400 N E McClary St New Cordell, OK 73632	580-832-2334
Watonga Police Department	119 E 1st St Watonga, OK 73772	580-623-7355
Weatherford Police	201 SW Main St Weatherford, OK 73096	580-772-7791
Texas		
City of Denison, TX	108 W Main St Denison, TX 75021	903-465-2720
City of Sherman, TX	317 S Travis St Sherman, TX 75090	903-892-7258
Gray County Sheriff Department	218 N Russell Pampa, TX 79065	806-669-8022
Grayson County Sheriff	200 S Crockett St #105A Sherman, TX 75090	903-813-4408
Hemphill County Sheriff's Office	401 E Purcell Ave Canadian, TX 79014	806-323-5324
Pampa Highway Patrol	2909 Perryton Pkwy Pampa, TX 79065	806-665-7168
Roberts County Sheriff's Office	122 S Main St Miami, TX 79059	806-868-3121
Shamrock Police Department	122 W 2nd St Shamrock, TX	806-256-2136
Wheeler County Highway Patrol	122 W 2nd St Shamrock, TX 79079	806-256-2136
Wheeler Sheriff Department	7944 US-83 Wheeler, TX 79096	806-826-5537

5.6.5 Local Emergency Planning Committees

Local Emergency Planning Committee		
Contact	Location	Phone
Blaine County LEPC	521 E 7th St Watonga, OK 73772	508-623-8566
Caddo County LEPC	P.O. Box 1427 Anadarko, OK 73005	405-933-1600
Canadian County LEPC	201 North Choctaw El Reno, OK 73036	405-295-6186
Carter County LEPC	107 1st Ave SW, Ardmore, OK 73401	580-223-7937
Comanche County	315 SW 5th Rm 107 Lawton, OK 73501	580-355-0535
Custer County LEPC	P.O. Box 300 Arapaho, OK 73620	580-323-4105
Dewey County LEPC	P.O Box 115 Taloga, OK 73667	Cell: 580-334-7316 580-328-5580
Garvin County :EPC	201 W Grant Pauls Valley, OK 73075	405-238-7591
Marshall County LEPC	201 East Overton Madill, OK 73446	580-759-2577
Oklahoma County LEPC	320 Robert S Kerr Suite 101 Oklahoma City, OK 73101	405-713-1360
Roberts County LEPC	P.O. Box 478 Miami, TX 79059	806-868-3721
Roger Mills County LEPC	P.O. Box 708 Cheyenne, OK 73628	580-497-2417
Washita County LEPC	P.O. Box 380 Cordell, OK 73632	580-770-1058

5.6.6 Medical Services

Hospital / Medical Care Facilities			
Contact	Location	Details	Phone
Oklahoma			
Duncan Regional Hospital	1407 N Whisenant Dr. Duncan, OK	24 Hr. Emergency Care	580-252-5300
Purcell Municipal Hospital	1500 N Green Ave Purcell, OK	24 Hr. Emergency Care	405-527-6524
Mercy Hospital Ardmore	1011 14th Ave NW Ardmore, OK	Level III Trauma Center	580-223-5400
Carnegie Tri-County Municipal Hospital`	102 N Broadway Ave Carnegie, OK	Trauma center	580-654-1050
Roger Mills Memorial Hospital	501 S L.L Males Ave Cheyenne, OK	Emergency services	580-497-3336
Alliance Health Clinton	100 N 30th St Clinton, OK	Emergency services and intensive care unit	580-323-2363
Cordell Memorial Hospital	1220 N Glenn L English St New Cordell, OK	Emergency services	580-832-3339
Great Plains Regional Medical	1801 W 3rd St. Elk City, OK	24-hour emergency department	580-225-2511
McBride Clinic	1000 Kingfisher Reg. Hospital Dr Kingfisher, OK	Occupational Medicine – Injury care	405-375-7980
Integris Marshall Memorial	1 Hospital Dr Madill, OK	24-hour emergency department	580-795-3384
McBride Clinic	9600 Broadway Ext Oklahoma City, OK	Orthopedic/Occupational Medicine – Injury care	405-230-9250
Mercy Hospital Watonga	500 N Clarence Nash Watonga, OK	Emergency Services	580-623-7211
Weatherford Regional Hospital	3701 E Main St. Weatherford, OK	Emergency services, ICU, and wound care	580-772-5551 580-774-4734
Integris Canadian Valley Hospital	1201 Health Center Dr Yukon, OK	24 hr. Emergency Care, Level III	405-717-6800

Hospital / Medical Care Facilities			
Contact	Location	Details	Phone
Texas			
Parkview Hospital	901 Sweetwater St Wheeler, TX	Provides general medical and surgical care for inpatient, outpatient, and emergency room patients	806-826-5581
Pampa Regional Medical Center	1 Medical Plaza Pampa, TX	Acute-care, diagnostic, medical, specialty, and surgical services	806-665-3721
Hemphill County Hospital	1020 S 4th St Canadian, TX	Hospital. Also provide ground ambulance services	806-323-6422

Ambulance Services		
Contact	Location	Phone
Ground Ambulance Services		
Southern Oklahoma Ambulance	Ardmore, OK	580-223-1226
Roger Mills County EMS	Cheyenne, OK	580-497-3336
Elmore City EMS	Elmore City, OK	580-788-2723
Pauls Valley Ambulance	Pauls Valley, OK	911
Air Ambulance Services		
Air Evac Life Team	71 Norman Martin Blvd Elk City, OK 73644	580-303-9200
Air Evac Lifeteam 130- Ardmore	1317 Lake Murray Dr. South Ardmore, OK 73401	580-226-3554
Trans Aero Medevac	Carlsbad and Artesia, NM	844-435-4911
Air Methods (Native Air)	Hobbs, NM	1-800-242-6199
Aero Care	Midland, TX	1-800-627-2376

5.6.7 Response Equipment and Contractors

Response Contractors		
Contact	Location	Phone
General Response Contractors		
Acme Boom & Environmental	2666 North Darlington Avenue, Tulsa OK, 74158	918-836-7184
Dillion Environmental Services	3202 Key Drive Ardmore, OK 73401	580-226-5303
Wildlife Rehabilitation Provider		
Wildcare Foundation	7601 84th St. Noble, Oklahoma 73068	405-872-9338
Incident Management/IAP Support		
The Response Group	281-880-5000	--
XEC Spill Response Trailer		
Geary Field Office	26170 Highway 281 Spur, Geary, OK 73040	

5.6.8 Public Resource and Water Quality Contacts

Public Resource and Water Quality Contacts	
Contact	Phone
Canadian River Compact Commission	Commissioner: 806-242-9651
US Bureau of Reclamation - Oklahoma-Texas Area Office	512-899-4150
Bryan County, OK	
Upper Trinity Regional Water District	972-219-1228
Caddo County, OK	
Anadarko Public Works Authority	405-247-2481
Chickasha Municipal Authority	405-623-5888
City of Anadarko, OK	405-247-2481
Ft. Cobb Master Conservancy District	405-643-2351
Public Service Company of Oklahoma	888-216-3523
Canadian County, OK	
City of El Reno, Ok	405-262-4070
City of Union City, OK	405-483-5509
City of Yukon, OK	405-354-1895

Public Resource and Water Quality Contacts	
Contact	Phone
Carter County, OK	
Ardmore Municipal Airport	580-389-5238
City of Gene Autry, OK	580-294-3454
Cleveland County, OK	
City of Lexington, OK	405-527-6123
City of Noble, OK	405-872-9251
City of Norman, OK	405-366-5396
City of Slaughterville, OK	405-872-3000
Creek County, OK	
City of Mannford (Water Intake)	918-865-4314
City of Mannford, OK	918-865-4314
Custer County, OK	
City of Clinton, OK	City Manager: 580-323-0261
Foss Reservoir	405-826-7525
Foss Reservoir Master Conservancy District	580-592-4421
Garvin County, OK	
City of Lindsay, OK	405-756-2019
City of Lindsay, OK	405-756-2019
Grady County, OK	
City of Alex, OK	405-785-2393
City of Chickasha, OK	405-222-6020
City of Minco, OK	405-352-4274
City of Tuttle, OK	405-381-2335
Grisham Construction Company, Inc.	Possibly Closed: 405-224-7283 Main Office: 936-291-2181
City of Chickasha, OK	405-222-6020
Grayson County, TX	
City of Denison, TX	903-464-2720
City of Sherman	903-892-7206
Juniper Point (USACE)	903-523-4022
RRA Preston Shores Water System	940-723-8697 Cell: 940-636-8019

Public Resource and Water Quality Contacts	
Contact	Phone
Haskell County, OK	
Haskell County Water Corporation	918-799-5575
Hemphill County, TX	
City of Canadian, TX	806-323-6473
Hemphill County Airport	806-323-8087
Johnston County, OK	
City of Toshomingo, OK	580-371-2369
Tishomingo Airpark	580-371-8605
Kingfisher County, OK	
City of Kingfisher, OK	405-375-3705
Logan County, OK	
City of Guthrie, OK	405-282-2489
Marshall County, OK	
RRA Preston Shores Water System	940-723-8697
University of Oklahoma	Emergency Maintenance: 405-325-3060
City of Madill	580-795-5586
McClain County, OK	
City of Goldsby, OK	405-288-6675
City of Newcastle, OK	405-387-4427
City of Purcell, OK	405-527-6561
McIntosh County, OK	
Bridgeport Dunes Homeowners Association	918-689-9484
City of Checotah, OK (2 intakes)	918-473-5411
Eufaula Public Works Authority	918-617 2595
Lakewood Park Water Association	N/A
McIntosh Co RWD #5, Shady Grove	918-473-7479
McIntosh County District #2	Commissioner: 918-689-5459 / Cell: 918-490-3177
McIntosh County Rural Water Dist #8	918-689-2117
McIntosh RWS & SW Mgt Dist #2	918-473-2552
McIntosh RWS & SW Mgt Dist #2	918-473-2552

Public Resource and Water Quality Contacts	
Contact	Phone
Muskogee Co RWD #3	918-474-3773
Porum Public Works Authority	918-484-5125, Emergency: 918-231-9078 or 918-231-9377
Standing Rock, Inc.	N/A
Twin Rivers Estates Inc	918-689-2168
Warner Utilities Authority	918-463-2696
Murray County, OK	
City of Davis, OK	580-369-3333
Dolese Bros Company	405-260-0389
U.S. Army Corps of Engineers - Lake Texoma Project Office	903-465-4990
Oklahoma County, OK	
City of Oklahoma City	Water Plant Managers: 405-297-2841 or 405-297-2304
Pittsburg County, OK	
USACE - Eufaula Lake Project Office	918-799-5843
Juniper Water Company LLC	N/A
Longtown Rural Water & Sewer District #1	918-452-3685
Pittsburg Co Public Works Authority (2 intakes)	918-334-3536
Pittsburg Co Rural Water Dist #14	918-423-8667 / 918-429-1440
Pittsburg Co RWD #7	918-429-1440
Seminole County, OK	
Oklahoma Gas & Electric Company	405-272-9595
Oklahoma Gas & Electric Company	405-272-9595
Tulsa County, OK	
USACE - Keystone Lake Project Office	918-865-2621

5.6.9 Recreational Areas

Recreational Areas	
Contact	Phone
Bryan County, OK	
Bridgeview Resort	580-795-3979
Eisenhower State Park	903-465-1956
Johnson Creek Campgrounds	580-924-7316
Little Glasses Resort and Marina Boat Ramp	580-795-2068
Newberry Creek Resort and Marina Boat Ramp	580-924-0787
Texoma Shores RV Resort Boat Ramp	855-872-1469
Caddo County, OK	
Crow's Roost West Boat Ramp	Fort Cobb WMA: 580-595-0347
Fisherman Rd	Fort Cobb WMA: 580-595-0347
Fort Cobb Lake Marina	405-643-9900
Fort Cobb State Park - Eagle's Nest Cove	405-643-2249
Lemon Hill Boat Ramp	Fort Cobb WMA: 580-595-0347
Canadian County, OK	
Lake Overholser Boathouse	405-552-4040
Lake Overholser Park	405-297-2756
Custer County, OK	
Buffalo Bend	580-592-4433
Copper Cove Marina & Rentals	580-660-6585
Cutberth Campground	580-592-4433
Foss State Park (Park Office)	580-592-4433
Great Western Trailhead	580-592-4433
Mouse Creek Campground	580-592-4433
Sandy Beach Campground	580-592-4433
Washita NWR - Riverside Rec Area Boat Ramp	580-664-220
Washita NWR: Turkey Flats Recreational Area Boat Ramp	580-664-220
Grady County, OK	
Grisham Construction Company, Inc.	Possibly Closed: 405-224-7283 / Main Office:936-291-2181

Recreational Areas	
Contact	Phone
Big Mineral Camp	903-523-4287
Cedar Bayou Marina	903-523-4248
Cedar Mills Resort	903-523-4222
Chickasaw Pointe Golf Club	580-564-2581
Grayson County, TX	
Dam Site Park	USACE: 903-465-4990
Flowing Wells Resort	903-786-2930
Grandpappy Point Resort & Marina	903-465-6330
Highport Resort	903-786-7000
Lighthouse Resort	903-786-2311
Little Mineral Marina	903-786-2332
Mill Creek Resort and Marina	903-786-2227
Paradise Cove	903-786-3890
Preston Bend Park	903-786-8408
Rock Creek Marina & Resort	903-523-3535
Walnut Creek Marina	903-523-4211
Marshall County, OK	
Alberta Creek Marina	580-564-2552
Buncombe Creek Campground	580-564-2901
Buncombe Creek Resort Marina	580-564-2543
Buncombe Creek View	580-20-9893
Buncombe Creek View	580-564-4211
Burns Run East Campground/Boat Ramp	580-965-4922
Burns Run West Campground/Boat Ramp	580-965-4660
Caney Creek Recreation Area	580-564-2632
Caney Creek Yacht Club	940-231-8390
Catfish Bay Marina and Boat Ramp	580-564-2307
City of Madill, Oklahoma	580-795-5586
Department of Tourism & Recreation	405-522-3968
Lake Texoma State Park	580-564-2566
Lakeside Recreation Area	580-920-0176

Recreational Areas	
Contact	Phone
Marina Del Ray	580-564-7212
Platter Flats Boat Ramp	580-434-5864
Willafa Woods Public Use Area	USACE Tulsa District: 918-669-7370
Willow Springs Marina & Resort	580-924-6240

5.6.10 Wildlife Refuge and Management Areas

Wildlife Refuge and Management Areas		
Contact	Location	Phone
Fort Cobb WMA	Caddo County	580-595-0347
Stinchcomb Wildlife Refuge (OK City Parks)	Canadian County	405-297-3882
Hagerman National Wildlife Refuge	Carter County	903-786-2826
Department of Wildlife Conservation	Ellis County	Game Warden: 580-334-0480
Packsaddle WMA	Ellis County	580-515-2030
Gene Howe Wildlife Management Area	Hemphill County	806-323-8642
Tishomingo National Wildlife Refuge	Johnston County	580-371-2402
Washita National Wildlife Refuge	Washita County	405-872-9338
Tishomingo National Wildlife Refuge	Johnston County	580-371-2402

5.7 Permian Basin

5.7.1 Cimarex Locations

Cimarex Locations		
Address	Phone	Fax
Carlsbad, NM		
2110 Aviation Way Carlsbad, NM 88220	575-628-3447	575-628-3588
Hobbs, NM		
2020 W. Bender Blvd. Hobbs, NM 88240	575-393-1020	575-218-7118
Monahans, TX		
2410 S. Loop 464 Monahans, TX 79756	432-242-2967	--
Midland, TX		
600 N. Marienfeld Street, Suite 600 Midland, TX 79701	432-571-7800	432-571-7832
Odessa, TX		
14000 W. I-20 E. Odessa, TX 79765	432-561-8730	432-242-2979
Triple Crown, TX		
40350 FM 3541 Orla, TX 79770	432-571-7700	--

5.7.2 County Emergency Management Agencies

County Emergency Management Agencies	
Contact	Phone
New Mexico	
Eddy County Emergency Management	575-885-3581
Loving County Emergency Management	575-745-3511
Texas	
Culberson County Emergency Management	432-283-2060
Reeves County Emergency Management	432-447-3542
Pecos County Emergency Management	432-290-0489
Terrell County Emergency Management	469-640-0648
Val Verde County Emergency Management	830-703-0043

5.7.3 Fire Departments

Fire Departments		
Contact	Location	Phone
New Mexico		
Carlsbad Fire Department	401 South Halagueno St Carlsbad NM 88220	575-885-3125
Eddy County Otis Fire Dept	2751 Pecos Hwy Carlsbad, NM 88220	575-236-6113
Eunice Fire Department	1107 Ave J Eunice, NM 88231	575-394-3258
Hobbs Fire Department	301 E White St Hobbs, NM 88240	575-397-9308
Jal Fire Department	400S 4th St Jal, NM 88252	575-395-2221
Lovington Fire Department	213 S Love St Lovington, NM 88260	575-396-2359
Maljamar Fire Department	11030 State HWY 3 Maljamar, NM88264	575-676-4100
Monument Fire Department	10600 NM-322 Monument, NM 88265	575-393-4339
Tatum Fire Department	12 N Ave A Tatum, NM 88267	575-398-5555
Texas		
Monahans Volunteer Fire	144 W 2nd St Monahans, TX 79756	432-943-2211
Odessa Fire and Rescue	1100 W 2nd St Odessa, TX 79763	432-257-0502
Kermit Fire Department	100 S Tornillo St Kermit, TX79745	432-586-2577
Pecos Fire Department	1110 W 3rd Pecos, TX 79772	432-445-3444
Midland Fire Department	1500 W. Wall Street Midland, TX 79701	432-685-7332
Culberson/Triple Crown	--	911
Pecos Fire Department	1110 W 3rd St Pecos, TX 79772	432-445-3444
Volunteer Fire Culberson County	Van Horn, TX	432-603-9164

5.7.4 Law Enforcement

Law Enforcement		
Contact	Location	Phone
New Mexico		
Chaves County Sheriff	1 St Mary's Pl Roswell, NM 88203	575-624-7590
Eddy County Sheriff	102 N. Canal Carlsbad, NM 88220	575-887-7551
Lea County Sheriff	Lovington, NM	575-396-3611
New Mexico State Police	4491 Cerrillos Rd Santa Fe, NM 87507	505-827-3349
New Mexico State Police Dispatch	4491 Cerrillos Rd Santa Fe, NM 87507	888-442-6677
Texas		
Culberson County Sheriff	300 La Caverna St Van Horn, TX 79855	432-283-2060
Ector County Sheriff	2500 S US-385 Odessa, TX 79766	432-335-3050
Loving County Sheriff	114 West Collins St Mentone, TX 79754	432-377-2411
Midland County Sheriff	400 S Main St Midland, TX 79701	432-688-4600
Midland Highway Patrol	2405 S Loop 250 W Midland, TX	432-498-2140
Odessa Highway Patrol	1910 W I-20 Odessa, TX	432-332-6100
Pecos County Sheriff	1774 US Hwy 285 Fort Stockton, TX	432-336-3521
Reeves County Sheriff	500 S Oak St Pecos, TX 79772	432-445-4901
Terrell County Sheriff	105 E Hackberry St Sanderson, TX	432-345-2525
Val Verde County Sheriff	295 FM 2523 Del Rio TX 78840	830-774-7513
Ward County Sheriff	300 E 4th St Monahans, TX 79756	432-943-6703
Winkler County Sheriff	1300 Bellaire St, Kermit, TX 79745	432-586-3461

5.7.5 Local Emergency Planning Committees

Local Emergency Planning Committee		
Contact	Location	Phone
New Mexico		
Chaves County	P.O. Box 1994 Roswell, NM 88202	575-624-6740
Eddy County LEPC	324 S. Canyon Street, Suite B Carlsbad, NM 88220	575-628-5450
Lea County LEPC	100 N. Main Lovington, NM 88260	505-391-2961
Texas		
Culberson County LEPC	PO BOX 754 Van Horn, TX 79855	432-284-0616
Ector County LEPC	300 N. Grant, Room 233 Odessa, TX 79761	432-498-4100
Loving County LEPC	PO BOX 193 Mentone, TX 79754	432-940-7934
Midland County LEPC	2435 E. Business Loop 20 Midland, TX 79701	432-688-4160
Pecos County LEPC	1774 N. Hwy 285 Fort Stockton, TX 79735	432-336-3521
Reeves County LEPC	700 Dogget, Ste E., BOX 11 Pecos, TX 79772	432-447-3542
Ward County LEPC	400 S. Allen, Ste 100 Monahans, TX 79756	432-943-3200
Winkler County LEPC	PO Drawer Y Kermit, TX 79745	432-527-8856

5.7.6 Medical Services

Hospital / Medical Care Facilities			
Contact	Location	Details	Phone
New Mexico			
Artesia Hospital	702 N 13th St Artesia, NM 88210	Has agreements to transport ER patients to larger hospital if necessary	575-748-3333
Carlsbad Medical ER	2430 West Pierce St Carlsbad, NM 88220	Acute medical services, ICU, 24-hour emergency service, level III trauma center	575-887-4100
Hobbs Hospital	5419 N Lovington Hwy Hobbs, NM 88240	Medical and trauma emergencies, intensive care unit	575-492-5000
Mountain View Regional Medical	4311 E Lohman Ave Las Cruces, NM 88011	Medical Center	575-556-7600
Eastern NM	405 W Country Club Rd Roswell, NM 88201	Trauma care/24-hour emergency department	575-622-8170
Texas			
Pecos County Memorial Hospital	387 I-10 Fort Stockton, TX 79735	Level IV trauma center	432-336-2004
Winkler County Memorial	821 Jeffee Dr Kermit, TX 79745	Level IV trauma center	432-586-5864
University Medical Center	602 Indiana Ave Lubbock, TX 79415	Level I trauma center. Burn Unit. 14 fully equipped intensive care ambulances	806-775-8200
Midland Memorial Hospital	400 Rosalind Redfern Grover Pkwy Midland, TX 79701	Level III trauma center	432-221-1111
Ward Memorial Hospital	406 S Gary Ave Monahans, TX 79756	ER 24 hours/7 days	432-943-2511
Odessa Regional Hospital	520 E 6th St Odessa, TX 79761	ER, wound care & intensive care unit	432-582-8000
Reeves County Medical	2338 Texas St Pecos, TX 79772	Emergency department with Level IV trauma care, ambulances and air ambulance support	432-447-3551
Culberson Hospital,	Eisenhower Rd & FM 2185 Rd Van Horn, TX 79855	24 Hour emergency	432-283-2760

Ambulance Services		
Contact	Location	Phone
Ground Ambulance Services		
Reeves County Medical	2323 Texas St. Pecos, TX 79772	432-447-3551
Permian Basin Ambulance	3711 Brazos Ave Odessa, TX 79764	432-550-9410
Artesia	Artesia, NM	575-746-5050
Carlsbad Fire Department	Carlsbad, NM	575-885-3125
Eunice Fire and Ambulance	Eunice, NM	505-394-3258
Jal Fire and EMS	Jal, NM	575-395-2221
Pecos Ambulance Service	Pecos, Texas	432-445-4444
Reeves County Hospital District	Pecos, TX	432-447-3551
Air Ambulance Services		
Trans Aero Medevac	Carlsbad and Artesia, NM	844-435-4911
Air Methods (Native Air)	Hobbs, NM	1-800-242-6199
Aero Care	Midland, TX	1-800-627-2376
Helipad Coordinates		
Helipad	Decimal Degrees	Degrees, Min, Sec
North	WGS84: N31.9440348°, W104.1827598°	WGS84:N31°56'38.525", W104°10' 57.935"
South	WGS84: N31.8363284°, W104.2181593°	WGS84: N31° 50'10.782", W104° 13'5.374"

5.7.7 Response Equipment and Contractors

Response Contractors		
Contact	Location	Phone
General Response Contractors		
Acme Boom & Environmental	2666 North Darlington Avenue, Tulsa OK, 74158	918-836-7184
NTG	701 Tradewinds Blvd., Suite C Midland, TX 79706	432-685-3898
Talon LPE	408 W. Texas St. Artesia, NM 88210	575-746-8768
Tetra Tech	1910 N Big Spring St Midland, TX 79705	432-682-4559
Wildlife Rehabilitation Provider		
Desert Willow Wildlife Rehabilitation Center	512 East Fiesta Dr. Carlsbad, New Mexico 88220	575-885-3399
Wildlife Center of Texas	7007 Old Katy Rd. Houston, TX 77024	713-861-9453
Incident Management/IAP Support		
The Response Group	281-880-5000	--
XEC Spill Response Trailer		
Carlsbad	2110 Aviation Way Carlsbad, NM 88220	
Hobbs Field Office	2020 W. Bender Blvd. Hobbs, NM 88240	
Monahans Field Office	2410 S. Loop 464 Monahans, TX 79756	
Triple Crown Field Office	40350 FM 3541 Orla, TX 79770	

5.7.8 Public Resource and Water Quality Contacts

Public Resource and Water Quality Contacts		
Contact	Location	Phone
International Boundary & Water Commission	N/A	800-262-8857
Pecos River Compact Commission	N/A	Commissioner: 432-729-3225 / Advisor: 512-239-4696
Rio Grande Watermaster Program (TCEQ)	N/A	800-609-1219
US Bureau of Reclamation - Oklahoma - Texas Area Office	N/A	512-899-4150
USACOE Albuquerque District Emergency Management	N/A	505-342-3686

5.7.9 Recreational Areas

Recreational Areas		
Contact	Location	Phone
Seminole Canyon State Park & Historic Site	Val Verde	432-292-4464

5.8 Required Notifications

5.8.1 National Response Center (NRC)

NRC
800-424-8802

National Response Center (NRC) **c/o United States Coast Guard (CG-MER-3)** **2703 Martin Luther King Jr. Ave SE** **Washington, D.C. 20593-7000**	**Additional Information:** **Web Site** http://www.nrc.uscg.mil

If you have a spill/release to report, contact the NRC via the toll-free number or visit the NRC Web Site (http://www.nrB.uscg.mil) for additional information on reporting requirements and procedures. For those without 800 access, please contact the NRC at 202-267-2675.

Reporting Requirements

Type:	All spills that impact or threaten navigable water or adjoining shorelines
Verbal:	Within 1 Hour of release
Written:	As requested by the agency

Be prepared to give the following information when reporting an incident:

✓	Your name, location, organization, and telephone number
✓	Name and address of the party responsible of the incident
✓	Date and time of the incident
✓	Location of the incident
✓	Source and cause of the release or spill
✓	The number of fatalities and personal injuries if any
✓	All other significant facts that are known by the operator that are relevant to the cause of the incident or the extent of damages.

5.8.2 Environmental Protection Agency (EPA)

EPA Region 6 (South Central) 866-372-7745	
Environmental Protection Agency Region 6 **1445 Ross Avenue, Suite 1200** **Dallas, Texas 75202**	**General Information** Phone: 800-887-6063 http://www.epa.gov/aboutepa/region6.html

Reporting Requirements	
Type:	Any amount of oil that has entered or threatened to enter any navigable waters;
	A release of a hazardous substance above the RQ according to CERCLA requirements
Verbal:	At the earliest possible convenience
Written:	Not required
States:	Louisiana, Arkansas, Oklahoma, New Mexico, Texas
Note: Always request fax confirmation of the report	

If the facility discharges more than 1,000 gallons (23.8 barrels) of oil into waters of the U.S. in a single discharge event, or more than 42 gallons in each of two discharges within a twelve month period, the information required in 40 CFR 112.4(a) must be submitted to the EPA within 60 days.

5.8.3 Department of Transportation (DOT/PHMSA)

PHMSA
202-366-4433

Reporting Requirements	
PHMSA expects notification to the NRC at the earliest possible moment, but no later than one hour after discovery of the following events.	
✓	A natural gas leak or hazardous liquid leak where the repair cost, including property damage, could exceed $50,000 or the release could meet or exceed 3 MMCF of gas or 5 gallons of hazardous liquid.
✓	Any injuries or fatalities that occur as a result of an event to which a company facility may have contributed. This is not dependent on a natural gas or hazardous liquid release.
✓	A natural gas release of unknown quantity through the ESD system or a relief valve that could meet or exceed 3 MMCF. A hazardous liquid release of 5 gallons or more, except that no report is required for release of less than 5 barrels if associated with maintenance work, unless other reporting criteria are met. If the volume of gas or hazardous liquid released is not immediately known, contact Operational Compliance as soon as practical but no later than 1 hour following discovery of the event.
✓	An emergency shutdown of an LNG facility or underground natural gas storage facility.
✓	A release of any quantity of natural gas from company facilities that results in an evacuation.
✓	An observation of surface bubbles or sheen in waters of offshore water where company facilities are present.
✓	A release of any quantity of hazardous liquid that resulted in pollution of any stream, river, lake, reservoir, or other similar body of water.
✓	A circumstance where natural gas or hazardous liquids is not released but the event results in emergency responders arriving at the facility or garners attention from the public or media.
Follow-up Report	In addition to the reporting of accidents to the NRC, ***a written/electronic accident report*** (DOT/PHMSA F 7000-1 rev 7/2014, which can be found at http://www.phmsa.dot.gov), must be submitted as soon as practicable, but ***no later than 30 days*** after the incident for releases resulting in the following:

5.8.4 Chemical Safety and Hazardous Investigation Board

Chemical Safety & Hazard Investigation Board
202-261-7600

Reporting Requirements

The CSB requires an owner or operator of a stationary source to submit an accidental release report to the CSB any accidental release resulting in a fatality, serious injury or substantial property damages.

If notification to the National Response Center (NRC) has been made, the CSB reporting requirement may be satisfied by submitting the NRC identification number to the CSB immediately following submission of the report to the NRC.

If notification has not been made to the NRC, a report must be submitted directly to the CSB within four hours of the accidental release and must include the following information, as applicable:

✓	The name of, and contact information for, the owner/operator;
✓	The name of, and contact information for, the person making the report;
✓	The location information and facility identifier;
✓	The approximate time of the accidental release;
✓	A brief description of the accidental release;
✓	An indication whether one or more of the following has occurred: • Fire; • Explosion; • Death; • Serious injury; or • (5) Property damage;
✓	The name of the material(s) involved in the accidental release, the Chemical Abstract Service (CAS) number(s), or other appropriate identifiers
✓	If known, the amount of the release:
✓	If known, the number of fatalities;
✓	If known, the number of serious injuries;
✓	Estimated property damage at or outside the stationary source; and
✓	Whether the accidental release has resulted in an evacuation order impacting members of the general public and others, and, if known: • The number of persons evacuated; • Approximate radius of the evacuation zone; and • (3) The type of person subject to the evacuation order (i.e., employees, members of the general public, or both).

The report may be made by email to: report@csb.gov, or by telephone at 202-261-7600.

5.8.5 Occupational Safety and Health Administration

Occupational Safety & Health Administration
Region 6
800-321-OSHA (6742)

Occupational Safety and Health Administration (OSHA) **Region 6 (NM, TX, OK, LA, AR)** **525 Griffin Street, Suite 602** **Dallas, TX 75202**	**24-Hour Hotline:** **800-321-(OSHA) 6742** **Regional Office:** **972-850-4145** **Baton Rouge, LA Office:** **225-298-5458** http://www.osha.gov/oshdir/r06.html

Reporting Requirements

Basic requirement. Within eight (8) hours after the death of any employee from a work-related incident. Any work-related in-patient hospitalization, as well as amputations and losses of any eye must be reported to OSHA within 24-hours.**

In accordance with 29 CFR 1904.39 the following information is to be supplied to OSHA when reporting an incident:

- Company name
- Location of the Incident
- Time of Incident
- Number of fatalities or hospitalized employees
- Names of any injured employees
- Contact person and phone number
- A brief description of the incident

If the Regional Office is closed, use the 24-Hour Hotline number to make verbal report. The following link will also take you to the on-line OSHA Form that can be submitted electronically:

https://www.osha.gov/pls/ser/serform.redoform

****The reporting time frames above are when the company learns of the accident and not when the accident actually occurred.**

5.8.6 Bureau of Land Management

Bureau of Land Management

Carlsbad Field Office 620 E. Greene Street Carlsbad, NM 88220	Phone: 575-234-5972 https://www.blm.gov/office/carlsbad-field-office
Oklahoma Field Office 7906 E 33rd St Tulsa, OK 74145	Phone: 918-621-4100 https://www.blm.gov/office/oklahoma-field-office

Reporting Requirements

Any spill on Federal and Indian oil and gas leases or State or private land leases within a federally supervised unit or communalized areas must be reported according to the following rules:

Major Undesirable Events Requiring Immediate Notification

All Field Offices (FO) must submit an Initial Notification Report for all Major Undesirable Events (MUE) that occur on federally managed lands to the appropriate Washington Office (WO) and State Office (SO) personnel as soon as practical, but no later than 24 hours after either the Bureau of Land Management (BLM) discovers the MUE or the operator or public notifies the BLM about the MUE.

✓	Oil, saltwater and toxic liquid spills, or any combination, which results in the spill of 100 or more barrels of liquid. However, if the spill is entirely contained within the facility firewall, it may be reported only in writing.
✓	Equip. failures or other accidents, which result in the venting of 500+ MCF of gas.
✓	Any fire that consumes the volumes as specified above.
✓	Any spill, venting, or fire, regardless of the volume, which occurs in a sensitive area (e.g. parks, wildlife refuges, lakes, reservoirs, streams, and urban or suburban areas).
✓	Each accident that involves a fatal injury.
✓	Every blowout that occurs.

Written Reports

A follow-up report utilizing the BLM Major Undesirable Event Report Form to the appropriate BLM Field Office ***within 15 days*** after initial notification. The BLM Field Office FO's will submit the follow-up report within 15 days after initial notification.

Other-Than-Major Undesirable Events

The following incidents require only written notification.

✓	Oil, saltwater, and toxic liquid spills, or any combination which results in the spill of at least 10 but less than 100 barrels of liquid in non-sensitive areas, and all discharges of 100 or more barrels when the spill is entirely contained by the facility firewall.
✓	Equipment failures or other accidents, which result in the venting of at least 50 but less than 500 MCF of gas in non-sensitive areas.
✓	Any fire that consumes volumes in the ranges listed above.
✓	Each accident involving a major or life-threatening injury.

Spills in non-sensitive areas involving less than 10 barrels of liquid or 50 MCG of gas must be reported on the Monthly Report of Operations (Form 9-329). The volume and value of such losses must also be reported in the Monthly Report of Sales and Royalty (Form 9-361).

5.8.7 New Mexico State Notifications

New Mexico Environment Department (NMED)
505-827-9329

New Mexico Environment Department **Harold Runnels Building** **1190 St Francis Dr., Suite N4050** **Santa Fe, NM 87505**	**Emergency 24-Hr:** 505-827-9329 **Non-emergency 24 hr.:** 866-428-6535 **General Information:** 505-476-6000

Reporting Requirements

Who Must Provide Notification?

The owner, operator, or person in charge where a discharge has occurred must provide notification of the release to the New Mexico Environment Department (NMED).

What Kinds of Discharges Must be Reported?

A discharge of any material in a quantity that may, with reasonable probability, injure, or be detrimental to human health, animal/plant life, or property; or may unreasonably interfere with the public welfare or the use of the property must be reported. This includes chemicals, biohazard materials, petroleum products, and sewage. In addition to recent spills, the discovery of evidence of previous unauthorized discharges, such as contaminated soil or groundwater, also must be reported.
If you are unsure whether or not you should report a particular release, it is better to err on the side of caution and report it.

When Must Notification Be Provided?

Oral notification must be provided to NMED as soon as possible after learning of a discharge, but in no event more than twenty-four (24) hours thereafter.

What Information Must Be Provided?

When you contact NMED, be prepared to provide the following information (to the best of your knowledge):

✓	The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility;
✓	The name and address of the facility;
✓	The date, time, location, and duration of the discharge;
✓	The source and cause of discharge;
✓	A description of the discharge, including its chemical composition;
✓	The estimated volume of the discharge; and
✓	Any actions taken to mitigate immediate damage from the discharge.

Who Must You Notify?

For spills involving facilities operating under groundwater Discharge Permits, contact the permit reviewer directly or contact the Ground Water Quality Bureau. For all other situations, use the emergency and non-emergency 24-hour.
https://www.env.nm.gov/gwb/nmed-gwqb-NotificationofSpillsandUnauthori.htm

EMNRD Oil Conservation Division
505-476-3440

New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505	**General Information** 505-476-3440 **Fax:** 505-476-3462 http://www.emnrd.state.nm.us/

District Offices

District 1 – Hobbs *Counties: Chaves, Curry, Lea, Roosevelt*	1625 N. French Drive Hobbs, NM 88240	**Phone:**575-393-6161 **24-Hr Emergency:**575-370-3186 **Fax:**575-393-0720
District 2 – Artesia *Counties: Chaves, DeBaca, Dona Ana, Eddy, Grant, Hidalgo, Lincoln, Luna, Otero, Sierra*	811 S. First St. Artesia, NM 88210	**Phone:** 575-748-1283 **Fax:**575-748-9720
District 3 – Aztec *Counties: McKinley, Rio Arriba, Sandoval, San Juan*	1000 Rio Brazos Road Aztec, NM 87410	**Phone:**505-334-6178 **Fax:**505-334-6170
District 4 - Santa Fe *Counties: Bernalillo, Carton, Cibola, Colfax, Guadalupe, Harding, Los Alamos, Mora, Quay, San Miguel, Santa Fe, Socorro, Taos, Torrance, Union, Valencia*	1220 South St. Francis Drive Santa Fe, NM 87505	**Phone:** 505-476-3477 **24-Hr Emergency:** 505-419-1995 **Enforcement:** 505-476-3493 **Fax:** 505-476-3462

Reporting Requirements

The person operating or controlling either the release or the location of the release shall provide notification of releases in 19.15.29.8 NMAC as follows.

✓	The person shall report a major release by giving both immediate verbal notice and timely written notice under Subsections A and B of 19.15.29.10 NMAC.
✓	The person shall report a minor release by giving timely written notice under Subsection B of 19.15.29.10 NMAC.

The person operating or controlling either the release or the location of the release shall provide immediate verbal notification ***within 24 hours*** of discovery to the division district office for the area within which the release takes place. Also, the person shall provide immediate verbal notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief. ***The notification shall provide the information required on form C-141.***

The person operating or controlling either the release or the location of the release shall provide timely written notification within 15 days to the division district office for the area within which the release occurs by completing and filing form C-141. In addition, the person shall provide timely written notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief within 15 days after the release is discovered. The written notification shall verify the prior verbal notification and provide appropriate additions or corrections to the information contained in the prior verbal notification.

New Mexico Pipeline Safety Bureau
505-490-2375

Public Regulation Commission Pipeline Safety Bureau 1120 Paseo De Peralta, Rm. 416 P.O. Box 1269 Santa Fe, NM 87504	**Emergency/ After Hours:** 505-490-2375 **Non-Emergency:** 505-476-0298 http://www.nmprc.state.nm.us/transportation/pipeline-safety.html

The New Mexico Public Regulation Commission Pipeline Safety Bureau:

✓	Is charged with the task of enforcing Federal and State Pipeline Safety Regulations in order to provide for the safe operation of natural gas and hazardous liquid facilities;
✓	Is responsible for investigating intrastate pipeline incidents and accidents within New Mexico;
✓	Enforces the State Excavation Damage Prevention Law; and
✓	Is responsible for licensing crude oil, natural gas, and oil and gas product pipelines

Reporting Requirements

Per NMAC 15.60.2.8.B.(2) the NMPSB mirrors the telephonic notification requirements in 49 CFR 195.50. Report to NRC immediately if any of the following conditions occur

✓	Caused a death or a personal injury requiring hospitalization.
✓	Explosion or fire not intentionally set by the operator.
✓	Caused estimated property damage, including cost of cleanup and recover, value of lost product, and damage to property or others or both, exceeding $50,000.
✓	Resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines.

Follow-up Report	In addition to the reporting of accidents to the NRC, ***a written/electronic accident report*** (DOT/PHMSA F 7000-1 rev 7/2014, which can be found at http://www.phmsa.dot.gov), must be submitted to the NMPSB as soon as practicable, but ***no later than 30 days*** after the incident for releases resulting in the

5.8.8 Oklahoma State Notifications

Oklahoma Corporation Commission
Oil and Gas Division

Field Operations Department	405-521-2240
District Offices	
District I (NE Oklahoma) 115 W. Sixth St. Bristow, OK 74010-0779	918-367-3396
District II (NW Oklahoma) 101 S. Sixth St. Kingfisher, OK 73750-1107	405-375-5570
District III (SW Oklahoma) 1020 Willow St. Duncan, OK 73534-1525	580-255-0103
District IV (SE Oklahoma) 703 N. Broadway Ada, OK 74820-3437	580-332-3441

Reporting Requirements

Any spill to land must be reported to the OCC if it amounts to ten or more barrels of any substance used or produced in petroleum exploration or production. A spill of any quantity of these substances that comes in contact with water must be reported. A spill of any hazardous substance used in exploration or production activities that meets the reportable quantity (25 gallons or more), must be reported to the OCC and Department of Environmental Quality (DEQ). A verbal spill report must be made to the appropriate OCC District Office or Field Inspector within 24 hours of discovery. Within ten working days of discovery of a spill a follow-up written or oral report must be made.
http://www.occeweb.com/og/ogforms/ogsdr_form.html

Oklahoma Department of Environmental Quality (DEQ) Hotline
800-522-0206

Reporting Requirements

Any spill that affects surface water in the watershed of a water supply lake should be reported to the Oklahoma Department of Environmental Quality.

5.8.9 Texas State Notifications

State of Texas Spill-Reporting Hotline
1-800-832-8224

Texas Railroad Commission
844-773-0305 / 512-463-6788

Texas Railroad Commission of Texas Region 3 Office (Houston) 1919 N Loop West Suite 620 Houston, Texas 77008	**24-Hr. Emergency:** 844-773-0305 / 512-463-6788 **Houston, TX Office:** 713-869-5001

	Reporting Requirements
	Operators shall give immediate notice of a fire, leak, spill, or break to the appropriate commission district office. Such notice shall be followed by a letter giving the full description of the event, and shall include the volume of crude oil, gas, geothermal resources, other well liquids, or associated products lost.
✓	At the earliest practical moment, but within two hours following discovery, a company shall notify the Commission by telephone of any event that involves a release of natural gas from any pipeline which: • Caused a death or any personal injury requiring hospitalization. • Required taking any segment of a transmission line out of service. • Resulted in unintentional gas ignition requiring emergency response. • Caused estimated damage to the property of the operator, others, or both totaling $5,000 or more, including gas loss. • Could reasonably be judged by the operator as significant because of location, rerouting traffic, evacuation of any building, media interest, etc., even though it does not meet the above criteria.
✓	In the event of a fire and/or lightning strike, immediately notify the commission by letter, giving full details concerning the event. Such report shall likewise specify what steps have been taken or are in progress to remedy the situation reported and shall detail the quantity (estimated, if no accurate measurement can be obtained, in which case the report shall show that the same is an estimate) of oil, gas, or geothermal resources, lost, destroyed, or permitted to escape. In case any tank or receptacle is permitted to run over, the escape thus occurring shall be reported as in the case of a leak
✓	If written notification to the Department of Transportation is required, the Company shall send a copy of that written notification to the Railroad Commission of Texas within 30 days after the date of the telephonic report.
✓	Pipeline operators must report accidents on intrastate hazardous liquid pipelines reportable under 49 CFR Sections 195.50 and 195.52 and Chapter 8, by telephone within two hours and the required written report filed within thirty (30) days. Call the 24-hour emergency phone number to report an accident.

5.8.10 Local Emergency Planning Committees

Local Emergency Planning Committees

Area of Operation	Contact
Mid Continent	See Section 5.6.5
Permian Basin	See Section 5.7.5

Reporting Requirements

Facilities (including motor vehicles, rolling stock and aircraft) must immediately notify state, tribal and local authorities responsible for local emergency planning if there is: (1) A release at the facility of an Extremely Hazardous Substance (EHS) or a hazardous substance defined under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) equal to or in excess of the reportable quantity (RQ) for that substance, and (2) the release could potentially result in exposure of persons outside the boundary of the facility site. The EPA has identified and listed over 700 hazardous substances under CERCLA and has assigned an RQ to each substance. Chemicals on the EHS list have been also assigned reportable quantities. The “List of Lists” is a valuable source of information regarding RQs.
LIST OF LISTS: A Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112(r) of the CAA http://www2.epa.gov/epcra/epcracerclacaa-ss112rconsolidated-list-lists-october-2012-version

✓	Report chemical releases immediately to the appropriate State Emergency Response Commission (SERC), Tribal Emergency Response Commission (TERC), and Local Emergency Planning Committee (LEPC) potentially affected by the release.
✓	If it is not known whether the amount released meets the RQ threshold or not, it is recommended the release or spill be reported to the NRC, as it is the safest course of action. If it is determined that the release did not meet or exceed the substance’s RQ, the facility would still be acting responsibly. There are no penalties for reporting a spill unnecessarily, but there may be significant penalties for not reporting.
✓	In most instances, the facility must, within 30 days, also submit a written follow-up report about the incident to any affected SERC, TERC, and LEPB.

5.9 Additional Agency Contacts

Additional Agency Contacts		
Agency	Primary	Alternate
Federal Agencies		
Bureau of Indian Affairs – Eastern Oklahoma	918-781-4608	--
Bureau of Indian Affairs – Southern Plains	405-247-6673	--
U.S. FWS Region 2 (Southwest Region)	505-248-6908	--
Federal Aviation Administration	817-222-5006	--
U.S. Army Corp of Engineers – Tulsa District	918-669-7366	--
National Transportation Safety Board	800-682-9369	--
Dept. of Homeland Security - Hotline	800-323-8603	--
National Transportation Safety Board Communications Center	202-314-6290	--
State Agencies		
New Mexico Dept. of Public Safety	911	505-827-9000
New Mexico Wildlife Division	505-476-8000	--
New Mexico State Parks	505-476-3355	--
Oklahoma Dept. of Public Safety	911	405-425-2424
Oklahoma Dept. of Environmental Quality	800-522-0206	405-702-1000
Oklahoma Dept. of Wildlife Conservation (Fish & Wildlife)	918-683-1031	--
Oklahoma State Parks	405-522-9500	800-652-6552
Texas Department of Public Safety	512-424-2000	--
Texas Commission on Environmental Quality	800-832-8224 (Spills Hotline)	512-239-1000
Texas Parks & Wildlife	800-792-1112	512-389-4800
Texas General Land Office	800-832-8224 (Spills Hotline)	800-998-4456
Texas Dept. of Public Safety	911	512-424-2000
Texas Railroad Commission District 8	432-684-5581	--

Section 6 Incident Management System

6.1 Incident Command System Structure

Cimarex has adopted the National Incident Management System (NIMS) ICS organization as outlined in:

- Homeland Security Presidential Directive Five (HSPD-5)
- National Response Framework, 2013

All Federal, State, tribal, and local levels of government, as well as many private sector and non-governmental organizations use ICS for a broad spectrum of emergencies. These range from small to complex incidents, both natural and manmade, and include acts of catastrophic terrorism. The Company has adopted the NIMS ICS to allow the partnership of Unified Command to be developed when required in training, exercises or responses.

Note: The document, FEMA 501, National Incident Management System was referenced in the development of this document.

ICS Organization	
The ICS is applicable across a spectrum of incidents that may differ in terms of size, scope, and complexity because of its:	
✓	A modular organizational structure that is extendable to incorporate all necessary elements. Responsibility and performance begin with the incident command element, the IC, and build from the top down.
✓	Functional unit management structure.

Functional Areas	
ICS is usually organized around five major functional areas:	
✓	Command.
✓	Operations.
✓	Planning.
✓	Logistics.
✓	Finance/administration.
The IC will establish the sixth functional area, intelligence, based on the requirement of the situation at hand.	

Transitional Steps	
Some of the more important transitional steps that are necessary to apply ICS in a field incident environment include the following:	
✓	Establish incident facilities as needed, strategically located, to support facility operations.
✓	Establish the use of common terminology for organizational functional elements, position titles, facilities, and resources.
✓	Rapidly evolve from providing oral direction to the development of a written Incident Action Plan (IAP).
✓	Recognize and anticipate the requirement that organizational elements will be activated and take the necessary steps to delegate authority as appropriate.

Modular Extension	
The modular concept is based on the following considerations:	
✓	Deactivate organizational elements no longer required.
✓	Develop the form of the organization to match the function or task to be performed.
✓	Observe recommended span-of-control guidelines.
✓	Perform the function of any non-activated organizational element at the next highest level.
✓	Staff only those functional elements that are required to perform the task.

Management Assignments	
The IC's initial management assignments will normally be one or more section chiefs to manage the major ICS functional areas.	
✓	Section chiefs will further delegate management authority for their areas as required.
✓	If needed, section chiefs may establish branches or units as appropriate for the section.
✓	Each functional unit leader will further assign individual tasks within the unit as needed.
✓	Section chiefs serve as the general staff for the IC.

Staffing	
Use the separate sections to organize staff as the need arises.	
✓	Section chiefs will further delegate management authority for their areas as required.
✓	If needed, section chiefs may establish branches or units as appropriate for the section.

Leadership Titles	
✓	Incident Command; Incident Commander
✓	Command Staff; Officer
✓	Section; Section Chief
✓	Branch; Branch Director
✓	Divisions/Groups; and Supervisors (Supervisor is only used within the operations section).
✓	Unit; and Unit Leader (Applies to the subunits of the planning, logistics, and finance / administration sections).

Partners	
Several types of agencies could be in the Operations Section and work together or in combinations depending on the situation.	
✓	Fire
✓	Law enforcement
✓	Public health
✓	Public works
✓	Emergency services
✓	Etc.
Other participants may include private individuals, companies, or nongovernmental organizations, some of which may be fully trained and qualified to participate as partners in the operations section.	

Tactical Operations	
The specific method selected for organizing and executing incident operations will depend on the:	
✓	Type of incident.
✓	Agencies involved.
✓	Objectives and strategies of the incident management effort.

Organization	
The organizational structure for incident tactical operations can vary and may be based on:	
✓	A method to accommodate jurisdictional boundaries.
✓	An approach that is strictly functional in nature.
✓	A mix of functional and geographical approaches.

Branches	
Establish branches for reasons such as:	
✓	The numbers of divisions and/or groups exceed the recommended span of control for the operations section chief.
✓	The nature of the incident calls for a functional branch structure.
✓	The incident is multi-jurisdictional.

Span of Control
The section chief shall set up branches and allocate divisions and groups within them to stay within the recommended span of control. (1 Supervisor per 7 people)

6.2 ICS Planning Cycle

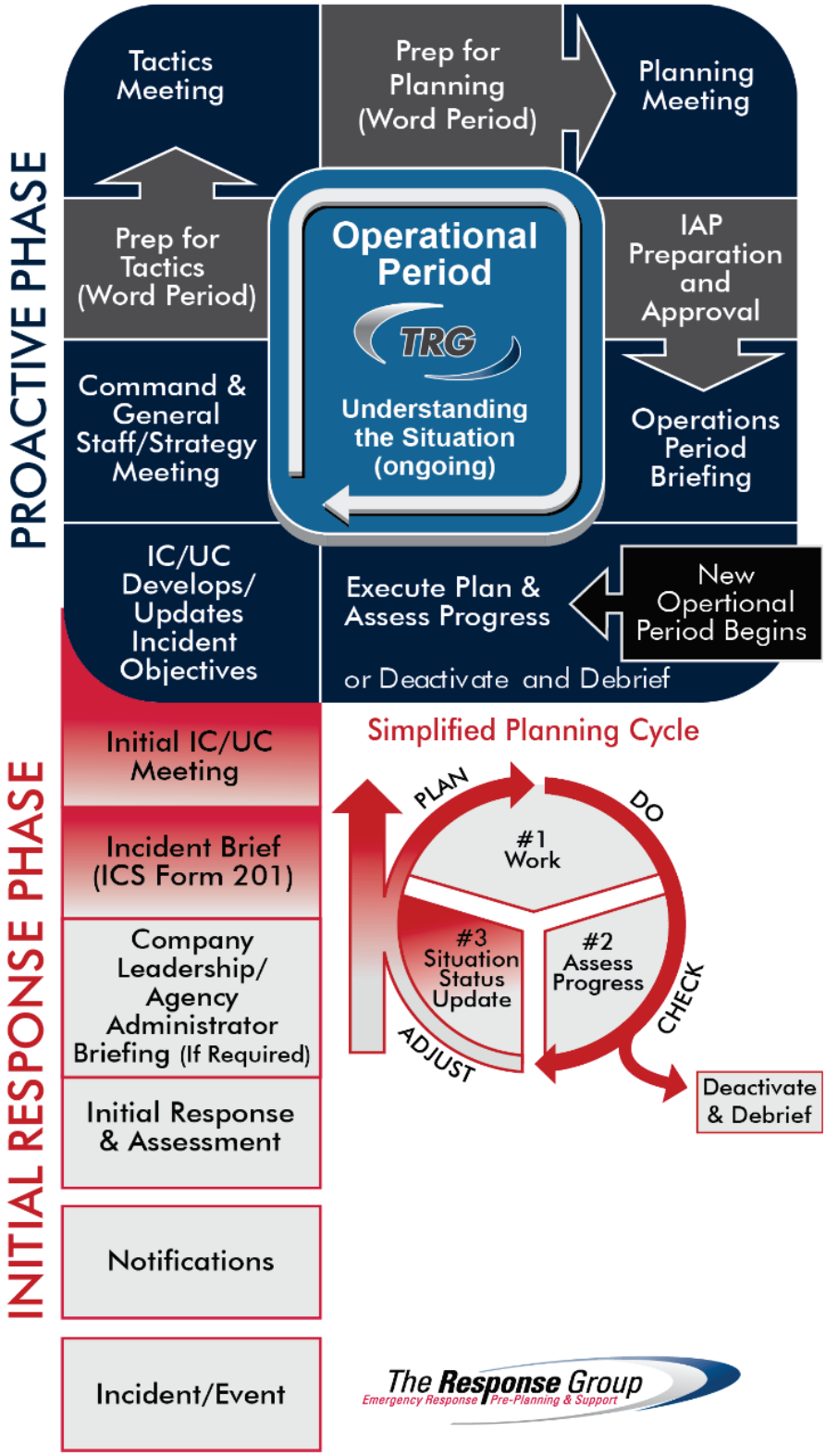
The ICS planning Cycle is an ordered sequence of actions used to accomplish incident objectives.

Purpose of the ICS Planning Cycle	
✓	Activating a defined and scalable response management of each incident's unique characteristics;
✓	Define operational periods for planning and operations purposes to develop measurable strategies that contribute to the mitigation as the incident evolves;
✓	Dissemination response information including: • Response Objectives • Resource status • Situation Updates, • Safety requirements and advisories; • Evaluation of current response strategies; and • Revision of the above as the incident evolves.
✓	Establish incident objectives guiding the efforts of the IMT;

As depicted on the ICS "Planning P" the ICS planning cycle is divided into two phases; Initial Response, and Operational Planning.

In a more complex Tier II or III emergency, planning for the next operational period will take place in the proactive phase. To manage the emergency a meeting schedule will be set by the IC. A detailed Incident Action Plan (IAP) will be developed through the meetings outlined in the Operational Planning description below. A more detailed description of the ICS Planning Cycle and its phases can be found in the Incident Management Handbook (IMH).

ICS Planning "P"



The Initial Response phase of an incident is typically the most likely phase of concern because of the dangers associated with the initial approach and assessment of a release.

Initial Response Phase	
✓	Incident Occurrence/ Discovery
✓	Notification
✓	Initial Response and Assessment
✓	Initial Incident Briefing ICS 201 form
✓	Assessment Meetings
✓	Initial Objectives Meeting

The primary document developed during the Initial Response phase is the ICS 201 Incident Brief, with other ICS forms supplementing as they are developed and information is gathered. When management of an incident transitions from reactive to proactive response methods, the planning cycle moves to Operational Planning.

The transition from reactive to proactive incident management. If the Unified Command determines formal incident planning is needed the Unified Command presents the Command and General Staff of the IMT with initial incident objectives to move the planning cycle forward.

The Operational Planning phase of an incident allows further refinement of planning processes and alignment with day-to-day operations. Control objectives are refined for each operational period and are defined by specific strategies and tactics for response operations. Because an incident response is dynamic and evolves over time, objectives, tactics, resources needs, etc. are re-evaluated for each Operational Period.

Proactive / Operational Planning Phase	
✓	Objectives Meeting
✓	Command and General Staff Meeting
✓	Tactics Meeting
✓	Planning Meeting
✓	Operations Briefing

The primary document developed during operational planning is the Incident Action Plan (IAP).

The planning cycle is timed so the operations briefing occurs just before the start of a new Operational Period, guided by the most recent developed IAP.

6.2 Cimarex Incident Management Team Organization

The information in this section is an overview of the Command and General Staff positions of the Incident Management Team. For information on subordinate positions or in-depth role and responsibility checklists refer to the Cimarex Incident Management Handbook (IMH).

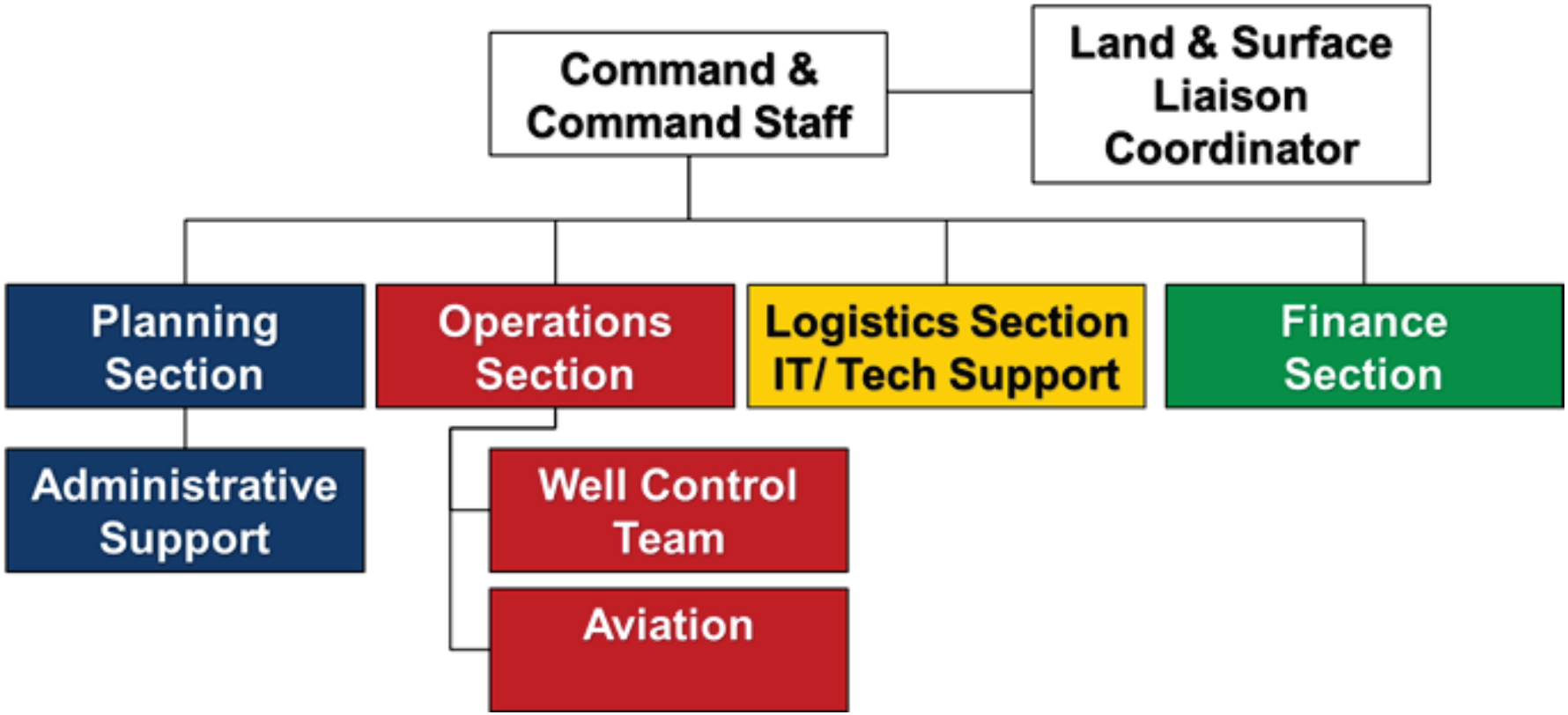
All assigned personnel should review common responsibilities in addition to position-specific responsibilities when assigned a position on the IMT.

In addition to the position required ICS forms and response specific documentation, every member of the IMT should maintain an ICS 214a Individual Activity Log.

It is recommended to initiate a large response effort during initial response when exact resource and personnel requirements are unknown and/or fluid, and then scaling back when resources are no longer necessary for the response.

IMT Roster and contact information is in Section 5.

Cimarex Incident Management Team Organization



6.3 Common Responsibilities

Common Responsibilities Checklist	
Receive assignment, including:	
✓	Job assignment (e.g., Strike Team designation, position, etc.).
✓	Brief overview of type and magnitude of incident.
✓	Resource order number and request number.
✓	Reporting location & time.
✓	Travel instructions.
✓	Any special communications instructions (e.g., travel, radio frequency).
✓	Monitor incident related information from media, internet, etc., if available
✓	Assess personal equipment readiness for specific incident and climate (e.g.) medications, money, computer, medical record, etc.). Maintain a checklist of items and possible a personal Go-Kit.
✓	Inform others as to where you are going and how to contact you.
✓	Review Incident Management Handbook.
✓	Take advantage of available travel to rest prior to arrival.
Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations:	
✓	Incident Command Post (ICP), Base/Camps, Staging Areas, Helibases
✓	If you are instructed to report directly to a line assignment, check-in with the Division/Group Supervisor.
✓	Receive briefing from immediate supervisor.
✓	Agency Representatives from assisting or cooperating agencies report to the Liaison Officer (LNO) at the ICP after check-in.
✓	Acquire work materials.
✓	Abide by organizational code of ethics.
✓	Participate in IMT meetings and briefings as appropriate.
✓	Ensure compliance with all safety practices and procedures. Report unsafe conditions to the Safety Officer.
✓	Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations.
✓	Organize and brief subordinates.
✓	Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
✓	Use clear text and ICS terminology (no codes) in all radio communications.
✓	Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit.

✓	Ensure all equipment is operational prior to each work period.
✓	Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
✓	Respond to demobilization orders and brief subordinates regarding Demobilization.
✓	Prepare personal belongings for demobilization.
✓	Return all assigned equipment to appropriate location.
✓	Complete Demobilization Check-out process before returning to home base.
✓	Participate in After-Action activities as directed.
✓	Carry out all assignments as directed.

6.4 Roles and Responsibilities Checklist

Listed below is a list of common roles that fall within the Cimarex IMT structure. In addition to the list below, Cimarex maintains an Incident Management Handbook which contains a complete list of all positions, roles and responsibilities within the companies IMT structure.

6.4.1 Incident Commander

Incident Commander and Deputy IC Checklist	
✓	Review Common Responsibilities
✓	Obtain a briefing from the prior IC (201 Briefing)
✓	Determine Incident Objectives & general direction for managing the incident.
✓	Establish the immediate priorities.
✓	Establish an ICP.
✓	Brief Command Staff and General Staff.
✓	Establish an appropriate organization.
✓	Ensure planning meetings are scheduled as required.
✓	Approve and authorize the implementation of an IAP.
✓	Ensure that adequate safety measures are in place.
✓	Coordinate activity for all Command and General Staff.
✓	Coordinate with key people and officials.
✓	Approve requests for additional resources or for the release of resources.
✓	Keep agency administrator informed of incident status.
✓	Approve the use of trainees, volunteers, and auxiliary personnel.
✓	Authorize release of information to the news media.
✓	Ensure ICS 209 is completed and forwarded to appropriate higher authority.
✓	Order the demobilization of the incident when appropriate.
✓	Maintain Individual/Activity Log (ICS 214a).

6.4.2 ICS Technical Specialist

ICS Technical Specialist Checklist	
✓	Review Common Responsibilities
✓	Determine site specific training requirements and need for a training program
✓	Develop site specific training program and implement as necessary
✓	Determine the feasibility of using trainees in the response
✓	Review trainee assignments and modify if appropriate
✓	Coordinate the assignments of trainees to incident positions with the Resources Unit
✓	Keep the Safety Officer apprised of status of compliance with training requirements
✓	Make follow-up contacts in the field to provide assistance and advice for trainees to meet training objectives, as appropriate, and with approval of Unit Leaders to ensure trainees receive performance evaluation.
✓	Monitor operational procedures and evaluate training needs.
✓	Respond to requests for information concerning training activities.
✓	Give the Training Specialist records and logs to the Documentation Unit at the end of each operational period.
✓	Maintain Individual/Activity Log (ICS 214a).

6.4.3 Safety Officer

Safety Officer Checklist	
✓	Review Common Responsibilities
✓	Participate in tactics and planning meetings, and other meetings and briefings as required.
✓	Identify hazardous situations associated with the incident.
✓	Review the IAP for safety implications.
✓	Provide safety advice in the IAP for assigned responders.
✓	Exercise emergency authority to stop and prevent unsafe acts.
✓	Investigate accidents that have occurred within the incident area.
✓	Assign assistants, as needed.
✓	Review and approve the medical plan (ICS Form 206).
✓	Develop the Site Safety Plan and publish Site Safety Plan summary (ICS Form 208) as required.
✓	Maintain Individual/Activity Log (ICS 214a).

6.4.4 Public Information Officer

Public Information Officer Checklist	
✓	Review Common Responsibilities
✓	Determine from the IC if there are any limits on information release.
✓	Develop material for use in media briefings.
✓	Obtain IC approval of media releases.
✓	Inform media and conduct media briefings.
✓	Arrange for tours and other interviews or briefings that may be required.
✓	Manage a Joint Information Center (JIC) if established.
✓	Obtain media information that may be useful to incident planning.
✓	Maintain current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel.
✓	Maintain Individual/Activity Log (ICS 214a).

6.4.5 Liaison Officer

Liaison Officer Checklist	
✓	Review Common Responsibilities
✓	Be a contact point for Agency Representatives.
✓	Maintain a list of assisting and cooperating agencies and Agency Representatives, including name and contact information. Monitor check-in sheets daily to ensure that all Agency Representatives are identified.
✓	Assist in establishing and coordinating interagency contacts.
✓	Keep agencies supporting the incident aware of incident status.
✓	Monitor incident operations to identify current or potential inter-organizational problems.
✓	Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources.
✓	Coordinate response resource needs for Natural Resource Damage Assessment and Restoration (NRDAR) activities with the OSC during oil and HAZMAT responses.
✓	Coordinate response resource needs for incident investigation activities with the OSC.
✓	Ensure that all required agency forms, reports and documents are completed prior to demobilization.
✓	Brief Command on agency issues and concerns.
✓	Have debriefing session with the IC prior to departure.
✓	Coordinate activities of visiting dignitaries
✓	Maintain Individual/Activity Log (ICS 214a).

6.4.6 Legal Officer

Legal Officer Checklist	
✓	Review Common Responsibilities
✓	Obtain briefing from the Incident Commander
✓	Advise the Incident Commander (IC) and the Unified Command, as appropriate, on all legal issues associated with response operations
✓	Establish documentation guidelines for and provide advice regarding response activity documentation to the response team
✓	Provide legal input to the Documentation Unit, the Compensation/Claims Unit, and other appropriate Units as requested
✓	Review press releases, documentation, contracts and other matters that may have legal implications for the Company
✓	Participate in ICS planning cycle meetings and other meetings, as requested
✓	Participate in incident investigations and the assessment of damages (including natural resource damage assessments)
✓	Maintain Individual/Activity Log (ICS Form 214a).

Intelligence/Security Officer Checklist	
✓	Collect and analyze incoming intelligence information from all sources.
✓	Determine the applicability, significance, and reliability of incoming intelligence information.
✓	As requested, provide intelligence briefings to the IC/UC.
✓	Provide intelligence briefings in support of the ICS Planning Cycle.
✓	Provide Situation Unit with periodic updates of intelligence issues that impact consequence management operations.
✓	Answer intelligence questions and advise Command and General Staff as appropriate.
✓	Supervise, coordinate, and participate in the collection, analysis, processing, and dissemination of intelligence.
✓	Assist in establishing and maintaining systematic, cross-referenced intelligence records and files.
✓	Establish liaison with all participating law enforcement agencies including Federal, State and Local agencies.
✓	Conduct first order analysis on all incoming intelligence and fuse all applicable incoming intelligence with current intelligence holdings in preparation for briefings.
✓	Prepare all required intelligence reports and plans.
✓	As the incident dictates, determine need to implant Intelligence Specialists in the Planning and Operations Sections.
✓	Maintain Individual/Activity Log (ICS 214a).

6.4.5 Operations Section Chief

Operations Section Chief Checklist	
✓	Review Common Responsibilities.
✓	Obtain briefing from IC.
✓	Request sufficient Section supervisory staffing for both ops & planning activities
✓	Convert operational incident objectives into strategic and tactical options through a work analysis matrix.
✓	Coordinate and consult with the PSC, SOFR technical specialists, modeling scenarios, trajectories, etc., on selection of appropriate strategies and tactics to accomplish objectives.
✓	Identify kind and number of resources required to support selected strategies.
✓	Subdivide work areas into manageable units.
✓	Develop work assignments and allocate tactical resources based on strategy requirements.
✓	Coordinate planned activities with the SOFR to ensure compliance with safety practices.
✓	Prepare ICS 234 Work Analysis Matrix with PSC to ensure Strategies & Tactics and task are in line with ICS 202 Response Objectives to develop ICS 215
✓	Participate in the planning process and the development of the tactical portions (ICS 204 and ICS 220) of the IAP.
✓	Assist with development of long-range strategic, contingency, and demobilization plans.
✓	Supervise Operations Section personnel.
✓	Monitor need for and request additional resources to support operations as necessary.
✓	Coordinate with the LOFR and AREP's to ensure compliance with approved safety practices.
✓	Evaluate and monitor current situation for use in next operational period planning.
✓	Interact and coordinate with Command on achievements, issues, problems, significant changes special activities, events, and occurrences.
✓	Troubleshoot operational problems with other IMT members.
✓	Supervise and adjust operations organization and tactics as necessary.
✓	Participate in operational briefings to IMT members as well as briefings to media, and visiting dignitaries.
✓	Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate.
✓	Receive and implement applicable portions of the incident Demobilization Plan.
✓	Maintain Individual/Activity Log (ICS 214a).

6.4.6 Planning Section Chief

Planning Section Chief Checklist	
✓	Review Common Responsibilities.
✓	Collect, process, and display incident information.
✓	Assist OSC in the development of response strategies.
✓	Supervise preparation of the IAP.
✓	Facilitate planning meetings and briefings.
✓	Assign personnel already on-site to ICS organizational positions as appropriate.
✓	Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation).
✓	Determine the need for any specialized resources in support of the incident.
✓	Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
✓	Assemble information on alternative strategies.
✓	Provide periodic predictions on incident potential.
✓	Keep IMT apprised of any significant changes in incident status.
✓	Compile and display incident status information.
✓	Oversee preparation and implementation of the Incident Demobilization Plan.
✓	Incorporate plans (e.g., Traffic, Medical, Communications, and Site Safety) into the IAP.
✓	Develop other incident supporting plans (e.g., salvage, transition, security).
✓	Assist Operations with development of the ICS 234 Work Analysis Matrix
✓	Maintain Individual/Activity Log (ICS 214a).

6.4.7 Logistics Section Chief

Logistics Section Chief Checklist	
✓	Review Common Responsibilities
✓	Plan the organization of the Logistics Section.
✓	Assign work locations and preliminary work tasks to Section personnel.
✓	Notify the Resources Unit of the Logistics Section Units activated, including names and locations of assigned personnel.
✓	Assemble and brief Logistics Branch Directors and Unit Leaders.
✓	Determine and supply immediate incident resource and facility needs.
✓	In conjunction with Command, develop and advise all Sections of the IMT resource approval and requesting process.
✓	Review proposed tactics for upcoming operational period for ability to provide resources and logistical support.
✓	Identify long-term service and support requirements for planned and expected operations.
✓	Advise Command and other Section Chiefs on resource availability to support incident needs.
✓	Provide input to and review the Communications Plan, Medical Plan and Traffic Plan.
✓	Identify resource needs for incident contingencies.
✓	Coordinate and process requests for additional resources.
✓	Track resource effectiveness and make necessary adjustments.
✓	Advise on current service and support capabilities.
✓	Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate.
✓	Receive and implement applicable portions of the incident Demobilization Plan.
✓	Ensure the general welfare and safety of Logistics Section personnel.
✓	Maintain Individual/Activity Log (ICS 214a).

6.4.8 Finance Section Chief

Finance Section Chief Checklist	
✓	Review Common Responsibilities
✓	Participate in incident planning meetings and briefings as required.
✓	Review operational plans and provide alternatives where financially appropriate.
✓	Manage all financial aspects of an incident.
✓	Provide financial and cost analysis information as requested.
✓	Gather pertinent information from briefings with responsible agencies.
✓	Develop an operating plan for the Finance/Admin Section; fill supply and support needs.
✓	Determine the need to set up and operate an incident commissary.
✓	Meet with Assisting and Cooperating Agency Representatives, as needed.
✓	Maintain daily contact with agency(s) administrative headquarters on Finance/Admin matters.
✓	Ensure that all personnel time records are accurately completed and transmitted to home agencies, according to policy.
✓	Provide financial input to demobilization planning.
✓	Ensure that all obligation documents initiated at the incident are properly prepared and completed.
✓	Brief agency administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.
✓	Develop recommended list of Section resources to be demobilized and initial recommendation for release when appropriate.
✓	Receive and implement applicable portions of the incident Demobilization Plan.
✓	Maintain Individual/Activity Log (ICS 214a).

Section 7 Media Relations

Communication and public affairs are best handled by persons trained in dealing with the media. There will be times when it is not practical to refer all questions from the media and public to corporate headquarters. Indeed, a factual, short response can help reduce the time and effort ultimately needed to respond to the media and public.

7.1 Initial Notifications

Notifications regarding an incident and associated media inquiry should follow the following process.

If the press or media arrive on scene, please follow the procedures below:				
✓	Immediately contact:			
	Name	Office	Cell	Home
	Adam Vela	303-285-4974	720-427-4568	303-839-8352
	Francis Barron	303-285-4968	303-520-7411	303-756-6335
	Stephen Flaherty	303-335-1311	303-483-3355	303-483-3355
✓	If you cannot reach the individuals above, limit any statement to the information located in **Section 7.2** of this ERP.			

7.2 Media Policy

All information released will be handled in accordance with the following policy:	
✓	In the event of injuries or loss of life, the names will be withheld until the next of kin is notified.
✓	Individuals assigned to guard duty should be courteous, as they will generally be the first Cimarex representatives with whom reporters and photographers will have contact. When press representatives ask guards at the facility or lease gates for permission to enter, the guards will tell them, as politely as possible, that they do not have the authority to grant such permission and will suggest that, for official information, they talk to the Public Relations representative who will be at the scene of the emergency.
✓	Reporters, photographers, and other unauthorized personnel are not to be permitted to be on the lease or near the facility during an emergency.
✓	There is to be no Company interference with reporters and photographers who are not on Company property. Photographers have rights to take photographs from public highways, and railroad property.
✓	**OUR REPRESENTATIVES MUST NOT DO ANY GUESSING OR SPECULATING**. They must state only established facts. Say no more than is needed. Whenever it is evident that the reporter is trying to make a sensation out of the incident to represent the danger or loss as being greater than it is, our representatives are to state the facts as they are. This is particularly necessary in the case of petroleum product fires, which are spectacular and usually look more serious than they are.

7.3 Example - Emergency Communication

Initial Verbal Media Response

"A _____ (release, fire, accident) occurred at Cimarex Energy Company's _____ (name of facility, location, platform, etc.) in_____ (city/offshore site) at approximately _____ (time), _____ (date). Cimarex has initiated response activities and authorities have been notified. Additional information will be provided as appropriate."

General comments for verbal use only in response to media inquiries to be given by site supervisor or communications director as appropriate

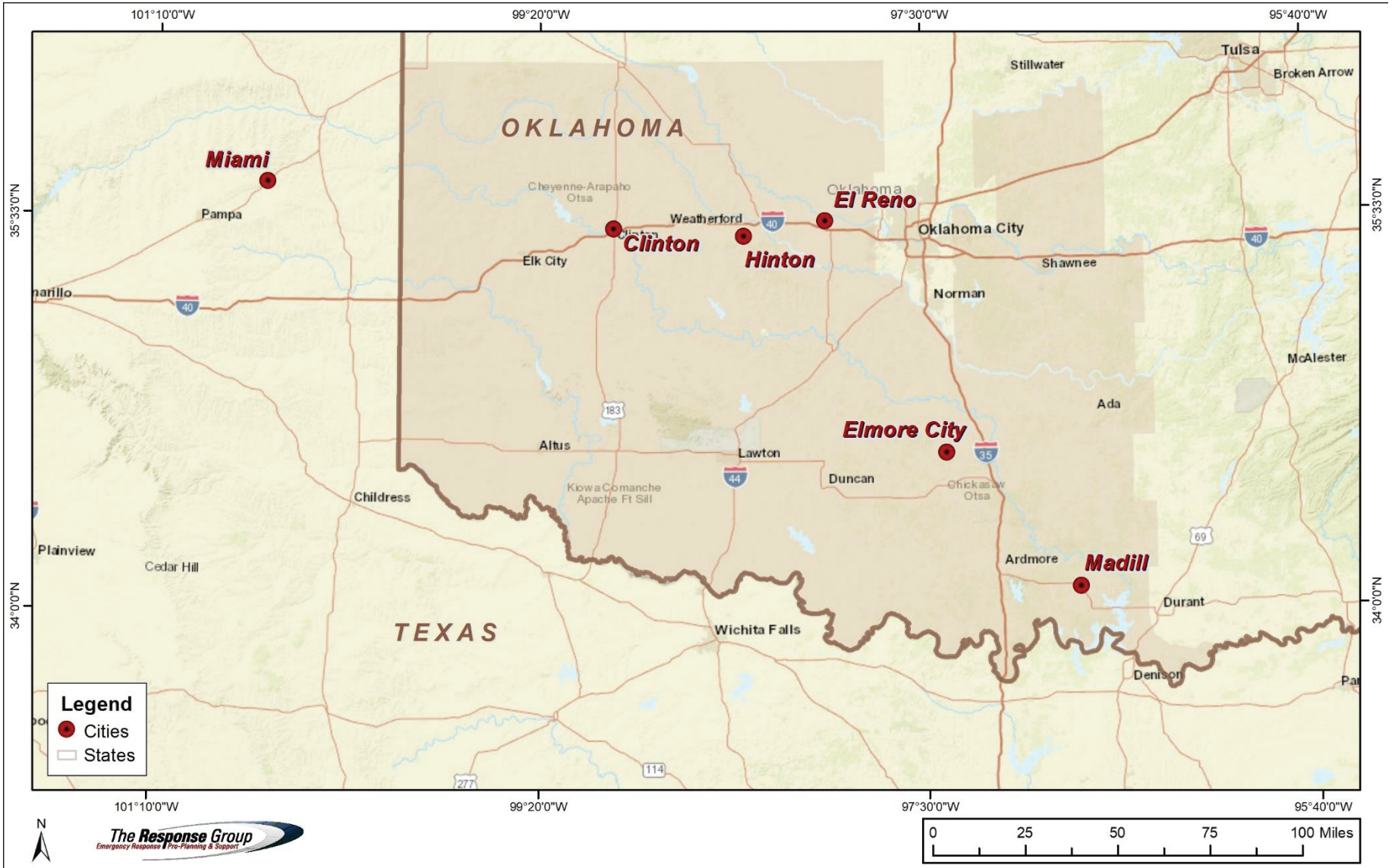
1. "Safety and environmental responsibility are top priorities at Cimarex Energy Company. While prevention of this type of situation is a core part of our operational strategy, we do prepare for these situations and emphasize internal response training."

2. "(We are responding) or (Necessary teams are responding) and we will share appropriate information with you when it is available."

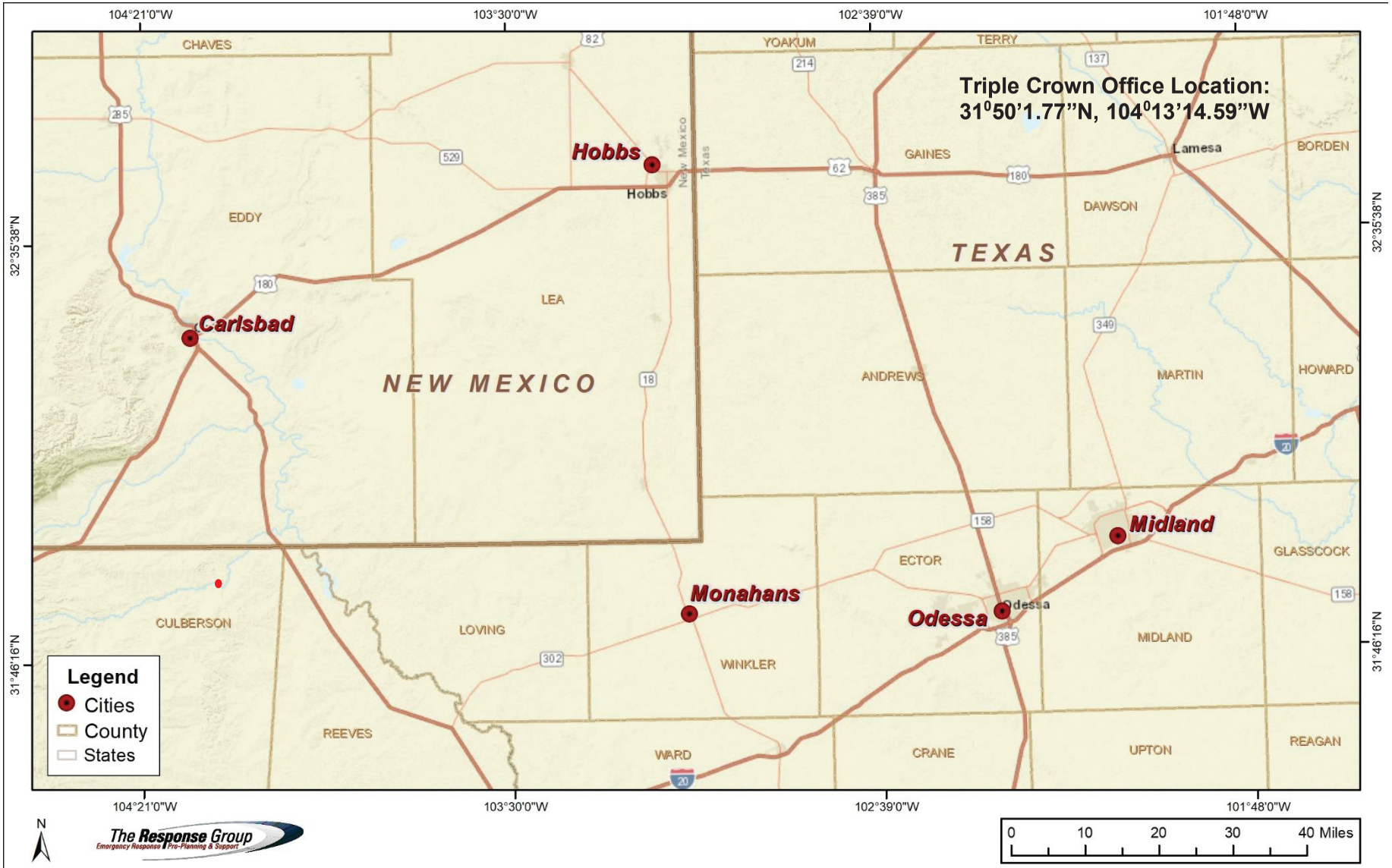
3. Answers to general questions about the site/facility.

Section 8 Operational Maps

8.1 North - Mid Continent Operations



8.2 South - Permian Basin Operations



Section 9 Training & Exercise Procedures

9.1 Training

9.1.1 Training Criteria

Training for all Incident Management Team Members is recommended to be performed on an annual basis.

9.1.2 Incident Management Team Training

The following provides sections that should be incorporated into the training modules for the Incident Management Team (IMT). The material should not be considered all-inclusive. Team members receiving this training will have an excellent educational foundation to help them play a highly pro-active role in the incident. It is recommended that this training be performed on an annual basis.

Incident Management Team Members	
✓	Notification procedures/requirements for facility operations, internal response organization, national and regional authorities, contractors, and the information required for those organizations.
✓	Communication system used for the notifications and response
✓	IMT Roles and Responsibilities
✓	IMT Incident Command Post (ICP) Facility
✓	Information on the products stored, used, or transferred by the facility/site including familiarity with the material safety data sheets, special handling procedures, health and safety hazards, spill and firefighting procedures
✓	Potential incident scenarios and response procedures
✓	The operational capabilities of the contractors to respond to different types of incidents and how to manage them
✓	Know and be able to implement the Incident Command System
✓	Know how to implement the emergency response plan
✓	Know how to implement the local authority emergency response plan
✓	Know the national and regional authority emergency response plan

9.1.3 HAZWOPER Training

The minimum amount of training under HAZWOPER depends on the worker's role and responsibilities during the response and cleanup. Before they begin working, all workers must be trained and demonstrate competence in the tasks they will conduct, the hazards associated with the tasks, and the precautions and protection needed to safely complete the tasks. After training, adequate supervision must be provided to ensure safety protocols are followed.

HAZWOPER Training Levels	
✓	First Responder - Awareness (Level 1) (Sufficient hours of training to demonstrate competencies).
✓	First Responder - Operations (Level 2) (8 hours initial).
✓	Hazardous Material Technician (Level 3) (24 hours initial).
✓	Hazardous Material Specialist (Level 4) (24 hours initial).
✓	"On-Scene" Commander or Incident Commander (Level 5) (24 hours initial).

Hazard Communication	
✓	Decontamination facility, if required.
✓	General site characteristics.
✓	Location of first aid assistance.
✓	Material adverse health characteristics.
✓	Material flammability, expositive characteristics.
✓	Material reactivity characteristics.
✓	Potential worksite personal safety hazards.

Personal Protective Equipment	
✓	Lines of authority.
✓	The location where they will be working.
✓	PPE requirements as identified by the material being handled and the activities being performed.
✓	Work they will perform.

First Responder Awareness Level

First responders at the awareness level are individuals who are likely to witness or discover a hazardous materials release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. First responders at the awareness level shall have sufficient training or have had sufficient experience to objectively demonstrate competency in the following areas:

✓	An understanding of what hazardous materials are, and the risks associated with them in an incident.
✓	An understanding of the potential outcomes associated with an emergency created when hazardous materials are present.
✓	The ability to recognize the presence of hazardous materials in an emergency.
✓	The ability to identify the hazardous materials, if possible.
✓	An understanding of the role of the first responder awareness individual in the emergency response plan including site security and control.
✓	The ability to realize the need for additional resources, and to make appropriate notifications.

First Responder Operations Level

First responders at the operations level are individuals who respond to releases or potential releases of hazardous materials as part of the initial response to the site for the purpose of protecting nearby persons. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the operational level shall have received at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas in addition to those listed for the Awareness level:

✓	Knowledge of the basic hazard and risk assessment techniques.
✓	Know how to select and use proper personal protective equipment provided to the first responder operational level.
✓	An understanding of basic hazardous material terms.
✓	Know how to perform basic control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available with their unit.
✓	Know how to implement basic decontamination procedures.
✓	An understanding of the relevant standard operating procedures and termination procedures.

Hazmat Technician	
Hazardous materials technicians are individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug	
✓	Know how to implement the emergency response plan.
✓	Know the classification, identification and verification of known and unknown materials by using field survey instruments and equipment.
✓	Be able to function within an assigned role in the Incident Command System.
✓	Know how to select and use proper specialized chemical personal protective equipment provided to the Hazardous Materials Technician.
✓	Understand hazard and risk assessment techniques.
✓	Be able to perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available with the unit.
✓	Understand and implement decontamination procedures
✓	Understand termination procedures
✓	Understand basic chemical and toxicological terminology and behavior

Hazmat Specialist	
Hazardous Materials Specialists are individuals who respond with and provide support to Hazardous Materials Technicians. Their duties parallel those of the Hazardous Materials Technician, however, those duties require a more directed or specific knowledge of the various substances they may be call upon to contain. Hazardous Materials Specialists shall have received at least 24-hours of training equal to the Technician level and in addition have competency in the following areas:	
✓	Know how to implement the local emergency response plan.
✓	Understand classification, identification and verification of known and unknown materials by using advanced survey instruments and equipment.
✓	Know the national or regional emergency response plan.
✓	Be able to select and use proper specialized chemical personal protective equipment provided to the Hazardous Materials Specialist.
✓	Understand in-depth hazard and risk techniques.
✓	Be able to perform specialized control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available.
✓	Be able to determine and implement decontamination procedures
✓	Have the ability to develop a site safety and control plan
✓	Understand chemical, radiological and toxicological terminology and behavior.

On-Scene Commander	
On-Scene Commanders who will assume control of the incident scene beyond the First Responder Awareness level, shall receive at least 24-hours of training equal to the First Responder Operations level and in addition have competency in the following areas:	
✓	Know and be able to implement the Incident Command System
✓	Know how to implement the emergency response plan
✓	Know and understand the hazards and risks associated with employees working in chemical protective clothing
✓	Know and understand the importance of decontamination procedures
✓	Know how to implement the local authority emergency response plan
✓	Know the national and regional authority emergency response plan
✓	Notification procedures/requirements for facility operations, internal response organization, national and regional authorities, contractors, and the information required for those organizations.
✓	Communication system used for the notifications and response
✓	IMT Roles and Responsibilities
✓	IMT Incident Command Post (ICP) Facility
✓	Information on the products stored, used, or transferred by the facility/site including familiarity with the material safety data sheets, special handling procedures, health and safety hazards, spill and firefighting procedures
✓	Potential incident scenarios and response procedures
✓	The operational capabilities of the contractors to respond to different types of incidents and how to manage them

9.1.4 Training Documentation

All Cimarex training shall be documented and training files for each affected employee will be maintained on file for a period of three (3) years.

9.2 Exercise/Drills

Cimarex requires exercises to ensure effectiveness of the written emergency response / support plan(s) and the capability of the response team(s). As a result, the company IMT will develop and maintain a multi-year program.

Exercises will simulate scenarios and risks identified in the company's Emergency Response Plan. Exercises should include all activated elements of the IMT and should present a variety of problems that should challenge all segments of the IMT.

9.2.1 Tabletop Exercise

A Tabletop Exercise is an informal gathering of appropriate incident response team personnel to discuss incident response/management issues. The intent of a tabletop exercise is to allow the participants to evaluate plans, procedures, policies and resolve issues of coordination, assignment of responsibilities, interaction between departments and organizations, etc. in a non-threatening environment and under a minimum of stress.

9.2.2 Functional Exercise

A Functional Exercise is designed to focus on testing and evaluating centralized emergency operations capabilities and the response of the various units of government, private industry, and volunteer organizations in a simulated, real time environment. This level of exercise involves (1) EOC personnel who carry out actions and coordination as though the incident were real; (2) a team of controllers and simulators who track exercise events and related objective assessment and represent the incident, responding field units, levels of government not active in the exercise; (3) a team of evaluators who assess operational capabilities based on required criteria for successful performance based on the emergency response plan.

9.2.3 Full Scale Exercise

The Full Scale Exercise is designed to test and evaluate the operational capability of emergency management systems in an inter-active manner. The full scale exercise includes all the components of the functional exercise with the addition of the actual responding field units and personnel. This level of exercise activity should test all components of the emergency management system that would be involved in the response given the scenario selected for the exercise.

The impact on a community from an incident can be greatly reduced by having good communication between the company and all of the stakeholders (neighbors, emergency response personnel and local officials).

Exercises should be designed to:	
✓	Test the IMT's ability to act as expected and required to emergencies that could occur within the Division.
✓	Provide response personnel with an opportunity to apply their training and exercise/get comfortable with their roles & responsibilities and the Incident Management System.
✓	Identify gaps, limitations, and areas of concern to address with the response team, plans, equipment, and response tools.
✓	Build on lessons learned from previous experience from previous drills or actual spill response events.

9.2.4 Documentation

Following any exercise or actual incident, the company IMT will conduct a critique to determine how the response went, how the ERP was used and followed, and if any improvements could be made. All improvements should be and provided to the primary contact for the ERP listed in **Section 2.3, Plan Review**.

Exercise documentation should include the following:	
✓	Type of exercise/response
✓	Date and time of exercise/response
✓	Description of exercise/response
✓	Objectives met
✓	Lessons learned

Section 10 Forms

10.1 Cimarex Spill Reporting Form

District/Dept.	**Type of Incident** ☐ Spill / Release ☐ NPDES Exceedance ☐ Sighting Only	**Was release confined to property boundaries or containment area?** ☐ Yes ☐ No	**Date of Release Or Exceedance** **Time** ☐ AM ☐ PM
Facility Location (Section/Township/Range)			
Latitude / **Longitude**	**Receiving Medium(s):** ☐ Air ☐ Subsurface ☐ Lined Impoundment ☐ Land ☐ Surface Water ☐ Unlined Impoundment ☐ Ground Water ☐ Other:		

Material Spilled / Released:	**Quantity Released:**	**Quantity Recovered:**
Crude	_____ Gal.	_____ Bbl. _____
Produced Water	_____ Gal.	_____ Bbl. _____
Refined Product	_____ Gal.	_____ Bbl. _____
Hazardous Substance	_____ Lbs..	_____ Tn. _____
Natural Gas	_____ Mscf	

Cause(s):
- ☐ Human Factor
- ☐ Faulty Procedure
- ☐ Act of God
- ☐ Design Malfunction
- ☐ Mechanical Failure
- ☐ Non-Company
- ☐ External Corrosion
- ☐ Internal Corrosion
- ☐ Unknown
- ☐ Other:

If "NPDES Exceedance" is checked, indicate source:

NPDES Permit # _____

- ☐ Produced Water
- ☐ Sump
- ☐ Domestic Wastewater
- ☐ Drilling Fluids/Drill Cuttings
- ☐ Well Treatment/Completion/ Workover Fluids
- ☐ Other:

If spilled to water, Coloration:
- ☐ Dark
- ☐ Silvery
- ☐ Dull
- ☐ Barely Visible

Size of Sheen / Slick: (indicate unit of measure)
Length: Width:

Weather Conditions:
Air Temperature:
Wind Speed:
Wind Direction (from):
Visibility:
- ☐ Clear
- ☐ Fog
- ☐ Partly Cloudy
- ☐ Heavy Overcast
- ☐ Heavy Rain
- ☐ Moderate Rain
- ☐ Light Rain

If "Spill / Release" is checked, indicate source:
- ☐ Storage Tank
- ☐ Piping
- ☐ Pipeline / Flowline
- ☐ Process of Equipment
- ☐ Stack / Flare
- ☐ Well
- ☐ Other:

Reported to the Following Government Agencies (Report Air Permit Exceedances to Tulsa Office ONLY)	**Name of Person Reported To**	**Name of Company Person Who Made Report**	**Date and Time Reported**
☐ **NRC (800-424-8802) Report No.:**			
☐ **State Agency** List:			
☐ **Other Agency – Name** ☐ _____ ☐ _____			
☐ **Other - Name:**			

☐ **Not reported to a Government Agency** **Why?:**

Describe how release / exceedance occurred. Indicate the anticipated time the condition is expected to continue, or if corrected, the duration of the condition. Identify the company or contractor involved in non-company releases.

Describe the assessment and remedial actions taken and planned.

Describe actions taken to Prevent Recurrence.

Witness to spill / exceedance – Name		**ES&H Notified?** ☐ **Yes** ☐ **No** **If yes, who was contacted?** **Name:** **Number:**	
Report Prepared By	**Date**	**Report Approved By**	**Date**

10.2 Bomb Threat Checklist

Look for caller ID number on phone and write down.

Bomb Threat Checklist	
Incident:	**Prepared By:**
Period:	**Version Name:**
Time and Date Reported:	
Who Reported:	
Caller Name:	
Exact Words of Caller:	
Time Call Ended:	

Questions to Ask	
When is the bomb going to explode?	
Where is the bomb right now?	
What kind of bomb is it?	
What does it look like?	
Why did you place the bomb?	
Where are you calling from?	

Description of Callers Voice

❑ Male ❑ Female ❑ Young ❑ Middle Aged ❑ Old ❑ Accent

Voice	Speech	Language	Accent	Manner	Background Noises
❑ Loud ❑ High Pitch ❑ Raspy ❑ Intoxicated ❑ Clearing Throat ❑ Soft ❑ Deep ❑ Pleasant ❑ Deep Breathing	❑ Fast ❑ Distinct ❑ Stutter ❑ Slurred ❑ Slow ❑ Distorted ❑ Nasal ❑ Other:	❑ Excellent ❑ Fair ❑ Foul ❑ Educated ❑ Good ❑ Poor ❑ Other:	❑ Local ❑ Foreign ❑ Not Local ❑ Regional Explain:	❑ Calm ❑ Rational ❑ Coherent ❑ Deliberate ❑ Righteous ❑ Angry ❑ Irrational ❑ Incoherent ❑ Emotional ❑ Coughing	❑ Office Machinery ❑ Factory Machinery ❑ Bedlam ❑ Animals ❑ Quiet ❑ Mixed ❑ Music ❑ Street Traffic ❑ Airplanes ❑ Trains ❑ Voices ❑ Party ❑ Atmosphere ❑ Shopping Mall

Call Recipient Information	
Call Recipient(s):	
Notes:	

10.3 Initial ICS Forms – Reactive Phase

10.3.1 Weather Report

Weather Report		Version Name:	
Incident Name:		Period: / / : to / / :	
Present Conditions			
Weather Conditions as of (Date/Time):			
Wind Speed:		***Wind Direction:***	
Temperature:		***Feels Like:***	
Dew Point		***Pressure***	
Visibility:		***UV Index:***	
Ceiling:		***Humidity:***	
Nautical Data			
Current Speed:		***Current Direction***	
Wave Height		***Wave Direction:***	
Swell Height:		***Swell Interval:***	
Water Temperature:			
Notes:			

Forecast Date	*Wind*	*Temp Hi/Lo*	*% Precip*	*Sunrise/ Sunset*	*Notes:*

Tides		
High/Low Tide	Date & Time of Tide	Height

Weather Report	Prepared By:	At: / / :
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10.3.2 Notification Status Report

Notification Status Report	Version Name:
Incident Name:	Period: / / : to / / :

External

Organization Notified	*Phone*	*Date/Time Notified*	*Person Contacted/Email*	*Notified By*	*Case No.*	*Notes*

Internal

Name	*Phone*	*Date/Time Notified*	*Email*	*Notified By*	*Notes*

Notification Status Report	Prepared By:	At: / / :
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10.3.3 ICS 201-1 Incident Briefing Map/Sketch

ICS 201-1 - Incident Briefing Map/Sketch	Version Name:
Incident Name:	Period: / / : to / / :

Incident Map/Sketch

Current Situation

Approved By

Incident Commander: Date:

Date:

ICS 201-1 - Incident Briefing Map/Sketch	Prepared By:	At: / / :
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10.3.4 ICS-201-2 Summary of Current Actions

ICS 201-2 - Summary of Current Actions	Version Name:
Incident Name:	Period: / / : to / / :

Initial Response Objectives

Current and Planned Actions

Date/Time	*Action/Event/Notes*

Approved By

Incident Commander: Date:

Date:

ICS 201-2 - Summary of Current Actions	Prepared By:	At: / / :
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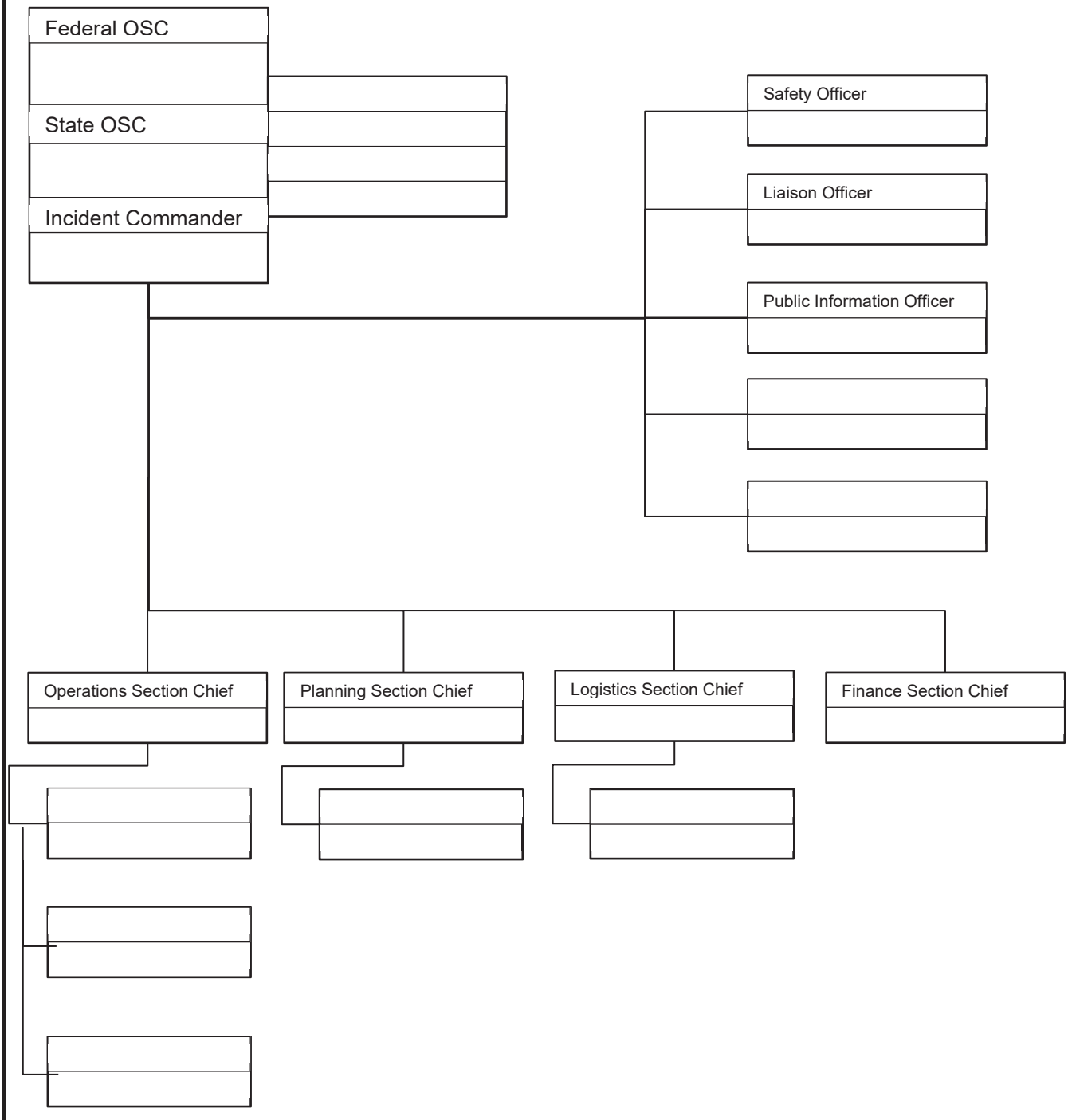
10.3.5 ICS 201-3 Current Organization

ICS 201-3 Current Organization	Version Name:
Incident Name:	Period: / / : to / / :



ICS 201-3 - Current Organization	Prepared By:	At: / / :
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10.3.6 ICS 201-4 Resource Summary

ICS 201-4 – Resource Summary				Version Name:			
Incident Name:				Period: / / : to / / :			
	Resource						
ID	Quantity	Kind/ Description	Supplier	Ordered	ETA	Arrived	Area Of Operation
						☐	
						☐	
						☐	
						☐	
						☐	
						☐	
						☐	
						☐	
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ICS 201-4 – Resource Summary				Prepared By:		At: / / :	
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10.3.7 ICS 208 Site Safety Plan

ICS 208 – Site Safety Plan	Version Name:
Incident Name:	Period: / / : to / / :
Facility:	

Site Characterization

Water:	Land:	Weather:
Wave Height:	Land Use:	Air Temp:
Speed:		Wind Speed:
Direction:		Direction:

Site Hazards

Yes	No	Hazards	Yes	No	Hazards	Yes	No	Hazards
☐	☐	Boat Safety	☐	☐	Fire, Explosion, In-situ Burning	☐	☐	Pump Hose
☐	☐	Chemical Hazards	☐	☐	Heat Stress	☐	☐	Slips, Trips, and Falls
☐	☐	Cold Stress	☐	☐	Helicopter Operations	☐	☐	Steam and Hot Water
☐	☐	Confined Spaces	☐	☐	Lifting	☐	☐	Trenching/Excavation
☐	☐	Drum Handling	☐	☐	Motor Vehicles	☐	☐	UV Radiation
☐	☐	Equipment Operations	☐	☐	Noise	☐	☐	Visibility
☐	☐	Electrical Operations	☐	☐	Overhead/Buried Utilities	☐	☐	Weather
☐	☐	Fatigue	☐	☐	Plants/Wildlife	☐	☐	Work Near Water
☐	☐		☐	☐		☐	☐	

Air Monitoring Limits

Oxygen Level		Hydrogen Sulfide		Total Hydrocarbons	
LEL		Benzene			

Engineering Controls

☐	Source of release secured	☐	Valve(s) closed	☐	Energy sources locked/tagged out
☐	Site secured	☐	Facility shut down	☐	

Personal Protective Equipment Required

☐	Impervious suit	☐	Flame resistant clothing	☐	Eye protection
☐	Inner gloves	☐	Hard hats	☐	Personal flotation
☐	Outer gloves	☐	Respirators	☐	Boots

Additional Control Measures Established

☐	Decontamination	☐	Illumination	☐	Additional stations established
☐	Sanitation	☐	Medical surveillance	☐	Facilities provided

Work Plan

☐	Booming	☐	Excavation	☐	Hot work
☐	Skimming	☐	Heavy equipment	☐	Appropriate permits used
☐	Vac trucks	☐	Sorbent pads	☐	
☐	Pumping	☐	Patching	☐	

Training

☐	Verified site workers trained per local/federal regulatory requirements	***Training Requirements:***	

ICS 208 – Site Safety Plan	Prepared By:	At: / / :
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ICS 208 – Site Safety Plan	Version Name:
Incident Name:	Period: / / : to / / :

Organization

Position	Name	Telephone/Radio	Position	Name	Telephone/Radio
Incident Commander			Safety Officer		
Deputy Incident Commander			Operations Section Chief		

Emergency Plan

☐	Fire Prevention Plan	☐	Evacuation Plan	☐	
☐	Alarm System	☐	First Aid Location	☐	

Notifications

Facility			Phone	Facility			Phone
☐	Hospital			☐	Fire		
☐	Ambulance			☐	Law Enforcement		
☐	Air Ambulance			☐	Emergency Response/Rescue		

Initial Briefing

☐ ***Initial safety briefing prepared for each site.***

Attachments/Appendices

Attachments		Appendices	
☐	Site Map	☐	Site Safety Program Evaluation Checklist
☐	Hazardous Substance Information Sheets	☐	Confined Space Entry Checklist
☐	Site Hazards	☐	Heat Stress Consideration
☐	Monitoring Program	☐	Cold Stress and Hypothermia Consideration
☐	Training Program	☐	First Aid for Bites, Stings, and Poisonous Plant Contact
☐	Confined Space Entry Procedure	☐	Safe Work Practice for Oily Bird Rehabilitation
☐	Safe Work Practices for Boats	☐	SIPI Site Pre-Entry Briefing
☐	PPE Description	☐	Personnel Tracking System
☐	Decontamination	☐	
☐	Communication and Organization	☐	
☐	Site Emergency Response	☐	

Approved By

Safety Officer Date:

Planning Section Chief: Date:

ICS 208 – Site Safety Plan	Prepared By:	At: / / :
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10.3.8 ICS 214a Individual Log

ICS 214a - Individual Log	Individual Name:
Incident Name:	

Activity Log

Date/Time	*Events/Notes*	*Critical*
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐

ICS 214a - Individual Log	Prepared By: at / / :	
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NOTES

NOTES

Appendix A Well Control

A.1 Immediate Notifications

In the event, or the potential event, of a well control emergency, the foreman or rig manager will immediately contact the Cimarex superintendent responsible for the operation or the first available member of the well control emergency response team listed below: **See Section 5 for the Notifications Flowchart and Cimarex contact numbers.**

A.1.1 Internal Notifications

Immediate Notifications		
Team Member	Office	Mobile
Charlie Pritchard	432-620-1975	432-238-7084
Skipper Herring	918-699-5768	918-607-1248
Spencer Bryant	432-620-7885	580-768-9995

A.1.2 Emergency Response Contractor

Cudd Well Control			
Address	2828 Technology Forest Blvd The Woodlands, TX 77381		
Toll Free Number	800-990-2833		
Office Number	713-849-2769		
Fax Number	713-849-3861		
Website	www.cuddwellcontrol.com		
Name	Title	Office	Mobile
Dustin Locklear	V.P. Well Control	580-243-5890	580-706-0972
Bhavish Ranka	Operations Manager	281-719-2843	281-381-9149
Rusty Jones	Sr Well Control Specialist	713-849-2769	832-314-6910
Well Control Emergency		713-849-2769	

For contact information regarding the Cimarex Incident Management Team, Federal/State Local Authorities, and Emergency Services, refer to **Section 5** of this ERP.

A.2 Response Team Responsibilities

At the time the well can no longer be controlled, the foreman shall carry out the following:

A.2.1 Foreman

Foreman	
✓	Remove everyone from location. The safety of personnel is always the number one priority.
✓	Secure the location by: 1. Making the initial contact with local authorities, highway patrol and other law enforcement personnel, as appropriate. 2. Appointing member(s) of rig crew to keep unauthorized people, including the media, away from the site. 3. Account for all personnel on location.
✓	Notify the Well Control Superintendent of the emergency and blowout conditions (i.e. H_2S, fire, water, gas.)
✓	Facilitate the evacuation of nearby residents, and seek assistance from local authorities.
✓	The foreman is directly responsible for supervising and preparing: • Weighted kill fluids • Set up of all pumping equipment for kill fluids. Ensures that sufficient horsepower is available\ • Set up for any special or heavy equipment needed
✓	Prepare sketches of Blowout Prevention Equipment with notation on placement of pipe and blind rams, choke manifolds and wellhead equipment. BOP nomenclature is listed from the wellhead up. The proper designations are: A = Annular Type Blowout Preventer G = Rotating Head R = Single ram type bop R_d = Double ram type preventer with two sets of rams installed R_t = Triple ram type preventer with three sets of rams installed C_H = Remotely operated connector attaching wellhead or preventers to each other C_L = Low pressure remotely operated connector attaching marine riser to BP stack. S = Spool with side outlets for kill or choke lines M = 1000 psi. working pressure
✓	Help develop well control plan.
✓	Informs the local fire department of plans.
✓	Maintain a list of all rental items (and rental companies) used during the well control operation.

A.2.2 Drilling Superintendent

Drilling Superintendent	
✓	Notifies the Well Control Manager that an emergency exists and recommends the Well Control Emergency Response Team be mobilized.
✓	Coordinates activities of Emergency Response Team as follows: 1. Contacts Division Production Manager for use of production personnel as support staff. 2. Contacts Contractor Superintendent and Cimarex Manager of Environmental, Health & Safety. 3. Help prepare the well control plan.
✓	Establishes ground communication network.
✓	Locates an off-site staging area with Construction Foreman.
✓	Coordinates activities with Contractor with regard to moving equipment.
✓	Establishes long term security program with law enforcement agencies.
✓	Directs relief well drilling activities as needed.
✓	Maintains accurate list of available and approved contractors who can provide materials and service during an emergency.

A.2.3 Drilling Manager

Drilling Manager	
✓	Mobilizes Well Control Emergency Response Team in the event of an emergency.
✓	Calls Well Control Specialists.
✓	Notifies IMA.
✓	Prepares well control plan with Cudd or Great White specialist, Well Control Superintendent, Drilling Engineer, Drilling Foreman, Field Superintendent, and Contractor Representative.
✓	Coordinates efforts with Production and Gas Sales Departments. 1. Will advise Vice President of Marketing when operation support group is needed and in what capacity. 2. Will advise Contractor Superintendent where support from their staff is needed.
✓	Will manage efforts of all directly affected operations personnel.
✓	Keeps VP of Drilling informed of all activities.
✓	Keeps Insurance adjusters informed when they are on-site.

A.2.4 Vice President - Drilling

Vice President – Drilling	
✓	Notify the Executive V.P. of Operations.
✓	Makes decision to declare an emergency situation exists.
✓	Coordinates press releases with V.P., Govt. & External Affairs.
✓	Keeps Executive Management informed.
✓	Has final authority over well control plan and other operations.
✓	Coordinates meetings with working interest partners to keep them informed of operations.
✓	Coordinates providing Insurance adjuster and IMA with the following: 1. All drilling/completion/workover reports. 2. Operating agreement. 3. Drilling contact. 4. Invoices from date of incident to controlled or plugged well. 5. Rental agreements, MSA's with vendors, etc.

A.3 Responsibilities of Others

A.3.1 Drilling or Completion Rig Contractor Superintendent

Drilling or Completion Rig Contractor Superintendent	
✓	Supervises activities of the Rig Manager as far as rig is concerned (i.e. removing equipment, equipment limitations, pressure ratings, etc.).
✓	Provides support personnel (if needed) to help as security guards, relief Rig Managers or other jobs.
✓	Assists in obtaining special permits to haul heavy and oversized equipment.
✓	Assists in mobilization of a rig to drill a relief well.
✓	Assists in the preparation of a well control plan.

A.3.2 Contractor Representative

Contractor's Representative	
✓	Reports to Well Control Superintendent and works with Foreman and Field Superintendent.
✓	Provides photographs and drawings of the rig and details of the rig's equipment and limitations.
✓	Works with Rig Manager to be sure rig equipment is not used beyond capacity.

A.3.3 Drilling Engineer

Drilling Engineer	
✓	Provides well engineering data, wellhead, casing design, etc.; and engineering and staff backup.
✓	Provides drawings showing the physical structure involved.
✓	Provides plan view of surface and bottom hole location.
✓	Maintains schematic drawing of the well bore including casing, drill string, tubing packers, and any other down hole equipment while operations are in progress. This sketch will contain pressure limitations and frac gradients.
✓	Provides electric logs of the well bore showing formations.
✓	Provides geologic cross section of the area of field, including surrounding well locations.
✓	If directional wells are used for well control, prepare a plan view of the proposed kill well(s) and current directional plots of each kill well.

A.3.4 Well Control Specialists

Well Control Specialists	
✓	Prepares Well Control Plan with V.P. of Drilling, Well Control Manager, Well Control Superintendent, Engineer, Foreman, Field Superintendent, and Construction Foreman.
✓	Directs on-site implementation of Well Control Plan.
✓	Communicates with Well Control Superintendent to plan equipment needs and schedules events and delivers.

A.3.5 Construction Foreman

Construction Foreman	
✓	Works under supervision of Well Control Superintendent and closely with Foreman and Field Superintendent to locate off-site staging area.
✓	Supervises building of off-site work area or location for relief well.
✓	Line up dirt moving equipment such as dozers, and other heavy equipment to build pits for mud and water as required.
✓	Finds water sources for as much water as possible for mud mixing, well control and cooling.
✓	Negotiates and settles damages with landowners on staging area. Uses land department to obtain names and phone numbers.
✓	Provides map of general area, including distances to nearest town. The map will include problem bridges or roads with load restrictions.
✓	Provide detailed list of residents within a 1 – 2 mile radius of the emergency, in case further evacuation is necessary.
✓	If possible provide a series of photographs showing the facilities before the emergency and then sequential photos of the same view, if possible, one photo from each of the four sides taken as day to day operations proceed.
✓	Works with Well Control Superintendent to establish a ground communication network (i.e. walkie-talkies, telephones, radio).
✓	Supervises site security personnel, and establishes a check in/out procedure.
✓	Supervises emergency reclamation of any land damaged during the operation.

A.3.6 Director of Environmental, Safety & Health

Director f Environmental, Safety & Health	
✓	Works under supervision of the Well Control Superintendent.
✓	Contact OSHA if any injuries have occurred.
✓	If toxic gas is involved, all on-site personnel will use proper respiratory protection.
✓	In charge of ensuring that proper first aid equipment is on location.
✓	Prepares emergency evacuation plan for nearby residents.
✓	Works with Chief Operating Officer and V.P., Govt. & External Affairs in making public disclosures of injuries or deaths.
✓	Reviews kill plans and gives input from a safety viewpoint.
✓	Provides Well Control Emergency Response Team with list of chemicals on-site.
✓	Coordinates with Well Control Superintendent to provide containment of an oil or salt water spill. Will work with Construction Foreman to build “catch” pits or dikes as needed.

A.3.7 Division Production Manager

Division Production Manager	
✓	Supervises installation of emergency production equipment.
✓	Supervises disposal of any non-saleable fluids contaminated at the surface.
✓	Coordinates with operations support group to obtain Emergency Sales Orders from regulatory authorities.

A.3.8 Gas & Oil Sales Group

Gas & Oil Sales Group	
✓	Obtains markets for emergency sale of gas or oil.
✓	Ensures regulatory compliance on the sale of gas or oil with appropriate state and federal agencies.

A.3.9 Materials Coordinator

Materials Coordinator	
✓	Coordinates transportation of tubing, casing valves, wellheads, and other small equipment.
✓	Coordinates food, lodging and drinks for members and work crews on location and office team personnel.

A.3.10 Press Relations

Press Relations	
All press releases are to be approved by the Legal Department and Executive Management. Inquiries from the press should be directed to the ranking Cimarex Energy representative on-site. In the event the press is near the location you should:	
✓	Be sure press representatives are a safe distance away and not in the way of efforts to control the well.
✓	Be polite and courteous. If a confrontation arises, ask for their names and phone numbers and indicate that we will get back to them once we have more facts. If they persist, instruct them not to trespass on the site, excuse yourself and walk away. Do not attempt to answer provocative questions, speculate as to cause or liability or make a reply to any question dealing with company activity or policy.
✓	Do not release any information on the well. Direct all inquiries to Steve Bell.

NOTE: For additional information regarding Press Relations, refer to **Section 7** of this ERP.

A.4 General Well Control Procedures

A.4.1 Blowout Contingency Procedures

Blowout Contingency Procedures	
If, at any time, a well blowout occurs:	
✓	The primary concern shall be directed towards the safety of Cimarex and contract personnel as well as the public.
✓	After the safety of all personnel is assured, the foreman shall contact the Well Control Superintendent or his alternate and report the situation.
✓	If a blowout has resulted in loss of life or injury to company or contractor personnel, the Medical Emergency Plan shall be implemented (See **Subsection 4.4**).
After contacting Management, the Well Control Superintendent may commence operations to control the blowout. These actions may include:	
✓	Eliminate all sources of ignition (shut down rig, all motors, etc.).
✓	Contact service companies to provide heavy kill fluids and pumping services.
✓	Obtain a backhoe or dozer to construct earthen dams to prevent escape of fluids, and vacuum trucks to collect and dispose of fluids.
✓	Blowout control specialists shall be contacted to organize and supervise the necessary specialty contractor services needed to regain control of the well.

A.4.2 Prevention of Well Control Problems

Prevention of Well Control Problems

In all cases where tubing flanges or wellheads are removed, a hydraulic blowout preventer equipped with proper pipe and blind rams shall be installed. The blowout preventer will be tested for proper operation prior to starting well work.

Appendix B Aviation Incident

B.1 Introduction

B.1.1 Background

Cimarex Energy is prepared to respond to an aviation incident involving one of its company aircraft. This Aviation Incident Response appendix is intended to provide guidance to Aviation Department personnel responding to such an event.

This appendix describes Cimarex Energy's aviation incident response organization, the overall response strategy and provides guidance on initial steps to be taken to activate company elements consistent with that strategy. All accident response actions will be aligned with company priorities.

Cimarex Aviation Contacts

Name	Position	Contact Number
Timothy Ganse	Manager, Aviation	303-898-6834
Miles Steel	Captain, Director of Safety & Loss Control	303-596-8052
Justin Kragenbrink	Director of Maintenance	720-519-3342

B.1.2 Definitions

The following definitions are consistent with FAA, US NTSB 830.2.

Aviation Definitions	
Term	Definition
Aircraft Accident	An occurrence associated with the operation of an aircraft, which takes place between the time any person boards the aircraft with the intention of flight and all the time such persons have disembarked, and in which any person suffers death or serious injury, or the aircraft receives substantial damage.
Serious Injury	Any injury that: • Requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was sustained. • Results in a fracture of any bone (except simple fracture of fingers, toes or nose). • Causes severe hemorrhages, nerve and muscle or tendon damage. • Involves any internal organ. • Involves second or third degree burns or any burns affecting more than 5 percent of body surface.
Substantial Damage	Damage or failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component.
Incident	An occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.

B.1.3 Missing Aircraft

An aircraft is officially missing when its fuel duration, as reported on its request for flight following or as reported on its FAA Flight Plan, has been exceeded and the aircraft's location is not known. Missing aircraft procedures can be instituted at any time prior to fuel exhaustion time.

The Missing Aircraft designation requires that all the items on the following checklist are completed and available for reference purposes when conducting this phase. Documentation of all actions, contacts, conversations, and time is an absolute necessity during the missing aircraft phase.

The Missing Aircraft phase cannot be conducted solely in-house by the agency. The National Search and Rescue (SAR) Plan requires coordination with SAR agencies. SAR operations will be coordinated through the FAA Flight Service Station to the Air Force Rescue Coordination Center (AFRCC) console: (877) 487-6867 and with local law enforcement agencies.

Proceed with the Aviation Incident response.

B.2 Aviation Incident Response Overview

When the IMT and or CMT are activated, the standard procedures in this Emergency Response Plan, and other associated contingency plans are followed. However, an aviation incident response requires implementing aviation-specific procedures.

Responses to aviation incident vary based on location, time, and scale of human tragedy and loss. Although these variations make each incident response unique, there is a common core of activities in most aviation incident responses. The following is a list of activities and organizations that can be expected to be involved. Although media coverage is expected to impact the response, it should be less than that expected during major aviation incidents. In recent incidents involving corporate aircraft, media coverage has been mostly regional in nature and has focused on the incident itself and the passengers onboard.

B.2.1 Aviation Incident Response Levels

Aviation Incident Response Levels	
Level	Definition
1	Incidents that are minor in nature and can be handled exclusively by tactical response personnel in a short amount of time
2	Incidents that cannot be handled exclusively by tactical response personnel and require the activation of all or part of the IMT.
3	Incidents that are determined to present a crisis situation. A Level 3 response requires the activation of the Cimarex CMT and may or may not involve the activation of tactical responders and/or the IMT. An aviation incident or accident involving serious injuries or fatalities will be considered a Level 3 Response

B.2.2 Priorities

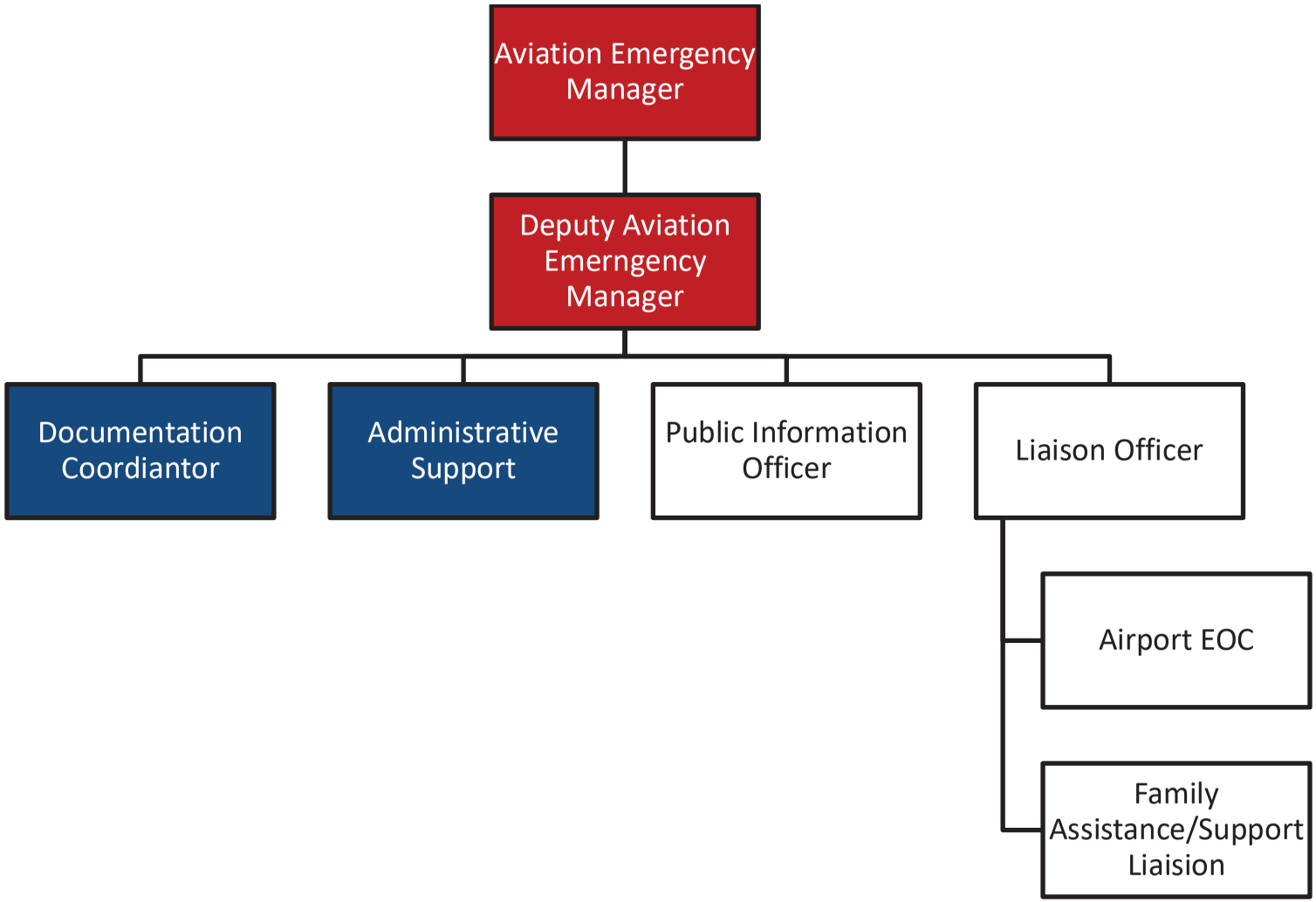
Aviation Response Priorities	
✓	Ensure the Safety of all Response Personnel and the Public
✓	Take the lead in organizing and managing emergency response operations.
✓	Support Company and/or Government Agency-led tactical response operations directed at responding to an incident scene and administering to those injured and/or killed as a result of the incident
✓	Provide compassionate assistance to survivors, survivor families, and victim families affected by an aviation accident.
✓	Be the primary point of contact for, and cooperate fully with local, state, and federal government agencies involved in aviation accident response operations

B.2.3 Objectives

Aviation Response Objectives	
✓	Gather, verify and disseminate information as quickly as possible.
✓	Assist victims and their family members
✓	Cooperate with federal investigation personnel.
✓	Comply with all administrative and legal requirements.
✓	Maintain normal operations to the greatest extent possible.
✓	Maintain normal operations to the greatest extent possible.

B.2.4 IMT Roles and Responsibilities

B.2.4.1 Aviation Incident Organization Chart



B.2.4.2 Aviation Emergency Manager

Aviation Emergency Manager (AEM)	
✓	Once verification is received that an accident has occurred, gather personnel for an initial brief.
✓	Activate the ICP and establish direction and control for the tactical level response from the Aviation Department.
✓	Ensure notifications are made to: Senior Management, National Transportation Safety Board (NTSB), Insurance carrier, Aviation Department personnel. Maintain contact with Senior Management to support overall response.
✓	Once the manifest has been printed and verified, provide information to Senior Management and emergency management officials (Fire Dept., county officials, etc.)
✓	Ensure Human Resources have made notifications to crewmembers' Next-of-Kin. Ensure HR representatives are assigned to each affected family from the Aviation Department. Ensure notifications are documented, and that family assistance personnel have contacted the affected families.
✓	Utilize all Company resources necessary to support response.
✓	Maintain the ICP until the pace of information flow no longer requires full-level response. Establish watch system to support On-Site personnel until the effort at the accident scene has ended.
✓	Ensure all inquiries are responded with, *"The focus of our efforts at this time is to attend to the needs of our passengers, crew and their families, and work with the NTSB and local public safety officials to determine the cause and extent of the accident. If you have any questions, please contact [Company] Public Affairs at [phone #]."*
✓	Obtain latest version of NTSB accident notification Form 6120.1 to be filed within ten days of accident.
✓	Provide emotional support for IMT personnel and monitor for signs of emotional stress.
✓	Maintain ICS-214 for all taskings, actions, and communications.

B.2.4.3 Deputy Aviation Emergency Manager

Deputy Aviation Emergency Manager	
✓	Notify affected base maintenance personnel to segregate maintenance documentation and secure it in a locked location.
✓	Provide emotional support for IMT personnel, and monitor for signs of emotional stress.
✓	Maintain ICS-214 for all taskings, actions, and communications.

B.2.4.4Documentation Coordinator

Documentation Coordinator	
✓	Upon notification of an aircraft accident, print the passenger manifest. Check for any messages from the affected flight which would show any changes in the manifest.
✓	Contact departure location FBO for information on servicing completed prior to departure, and complete Documentation Coordinator Checklist.
✓	Arrange for transportation and coordinate support for On-Site Support Team and their equipment to the site, as requested. Use Company aircraft, regularly scheduled airline or charter, as the situation dictates.
✓	Provide emotional support for IMT personnel and monitor for signs of emotional stress.
✓	Maintain ICS-214 for all taskings, actions, and communications.

B.2.4.5Administrative Support Checklists

Administrative Support	
✓	Establish location for Incident Command Post.
✓	Power-up and check all Command Post communications systems for proper operation. Check: telephones, fax, computer with e-mail.
✓	Ensure support for personnel in the Command Post (water, beverages, meals, light snacks, replacement administrative supplies).
✓	Document Command Post position manning and schedules.
✓	Manage operations of the Command Post telephone system. Ensure phone lines are identified for usage as outgoing lines, and incoming hotlines for family members and Company, as needed.
✓	Provide emotional support for IMT personnel and monitor for signs of emotional stress.
✓	Maintain ICS-214 for all taskings, actions, and communications.

B.2.4.6 Public Information Officer

Public Information Officer (PIO)	
✓	If aviation accident has been verified, request copy of verification report.
✓	Gather available department personnel, contact by telephone (not cellular) when not in the office. Inform them of the facts known about the accident.
✓	Brief all personnel on proper media responses (See PIO Checklist)
✓	Communicate and establish relationship with involved media.
✓	Provide latest information for support of press release
✓	Determine whether on-site media representative will be assigned and arrange transportation.
✓	Maintain ICS-214 for all taskings, actions, and communications.

B.2.4.7 Airport EOC Liaison Officer

Airport EOC Liaison Officer	
✓	Dispatch to airport
✓	Communicate and establish relationship with Airport EOC Liaison Officer
✓	Contact IMT Liaison/Communications Unit to establish Operations communication network.
✓	Keep the IMT informed of EOC operations and information regarding the incident, including but not limited to: • The incident, including status of passengers: confirmed names of uninjured, injured, and locations transported to and deceased. • Nature and status of on-scene tactical response operations • Agencies present at the Airport EOC and the nature and status of their activities, • Issues and concerns being worked • Requests for assistance
✓	Share information with the EOC Liaison Officer regarding the nature and status of the Cimarex response efforts, status of any requests for assistance, etc., as appropriate.

B.2.5 Coordination with External Organizations

Relationships with external organizations will be largely time-dependent and will vary with the circumstances of each accident. Likely on-site relationships and responsibilities are outlined below.

Response Coordination	
Organization	**Nature of Contact / Relationship**
Firefighters and Emergency Rescue	Have initial authority over accident site.
	Will maintain security perimeter around site and will not allow access until the scene is declared safe.
	Will be interested in any information the response team can provide on passengers, crew, and materials onboard the aircraft.
	Once the site is safe, will turn over Incident Command to NTSB Investigator-in-Charge.
NTSB / FAA	Investigator-in-Charge accepts responsibility as Incident Commander from local emergency or fire department personnel.
	Will maintain site security during the field investigation.
	May accept a trained response team as “party to the investigation” to support gathering of technical information and records for aircraft, personnel and standards, safety, and maintenance programs.
	Share investigation-related information with response team members.
	Remove Company or any “party” found withholding pertinent information or leaking investigation-related information.
	Take possession of, and review maintenance and operational documentation regarding aircraft, crew, policies, etc.
Airport	EOC Representative
Aircraft/Parts Manufacturers	Can be expected to also be “parties to the investigation”
	Provide historical information on parts, equipment, etc. and support various technical studies and engineering analysis.
	Can be expected to have bias.
Coroner / Medical Examiner	Will provide information on cause of deaths to support the accident investigation.
	Should be referred to family members for personal effects (Have Human Resources personnel coordinate this).
	Human Resources personnel will coordinate transportation to burial site.

Response Coordination	
Hospital	First Company personnel on-site expected to find out what hospitals involved in response, and location and status of any injured passengers and crew members
Family members of crew / passengers	High priority objective of all personnel is to honorably and supportively relate to surviving passengers and crew, and all affected family members.
	Expect human resources personnel and trained volunteers to establish and operate a family and friends assistance center.
	Coordinate all family travel and logistics through Human Resources and the On-Site Support Team.
Mortuary	Human Resources personnel will contact local mortuary to support affected family members.
	Human Resources personnel will coordinate transportation to burial site.
Others	Support, as applicable, through On-Site Support Team.

B.3 Aviation Incident Notifications

B.3.1 Internal Notifications

See **Section 5 Notification & Contact Lists.**

B.3.2 External Notifications

B.3.2.1 National Transportation Safety Board

National Transportation Safety Board		
Name	Contact Number	When to Call
NTSB Communications Center	202-314-6290	immediately upon knowledge of a crash

B.3.2.2 Centennial Airport

Centennial Airport		
Name	Position	Contact Number
Deborah Grigsby Smith	Arapahoe County Public Airport Authority Public Information Officer	720-272-4992

B.3.2.3 Additional Notifications

See Section 5 Notification & Contacts for additional. notifications.

B.3.3 Initial Notification Checklist

Aviation Initial Notification Checklist

Date / Time of Call: **Your Name:**

1. Caller Information

- ☐ Name:
- ☐ Title:
- ☐ Telephone number:

2. Initial Description

- ☐ Aircraft location:
- ☐ Aircraft type:
- ☐ Brief description of accident:

IMPORTANT - *Inform the caller you will need to verify information and will call them back within five (5) minutes at their location.*

3. Verification Contact

- ☐ If available, check with the Documentation Coordinator to see if Company aircraft may be in the vicinity of the reported accident.
- ☐ Located independent method of verifying agency telephone number – use telephone information.
- ☐ If number is the same, then contact directly. If number is not the same, then contact the agency number you obtained telephone information. Check to see if the person and number are authentic.
- ☐ Verify Information
  - Name:
  - Title:
  - Agency Address:
  - Telephone Numbers:
- ☐ Notify **Aviation Department Manager** by most expeditious means possible (must be verbal). Provide all details known.
- ☐ Contact initial caller. Document any further information discussed. Forward information request to Aviation Department Manager, or designee, for response.

4. Aircraft Information

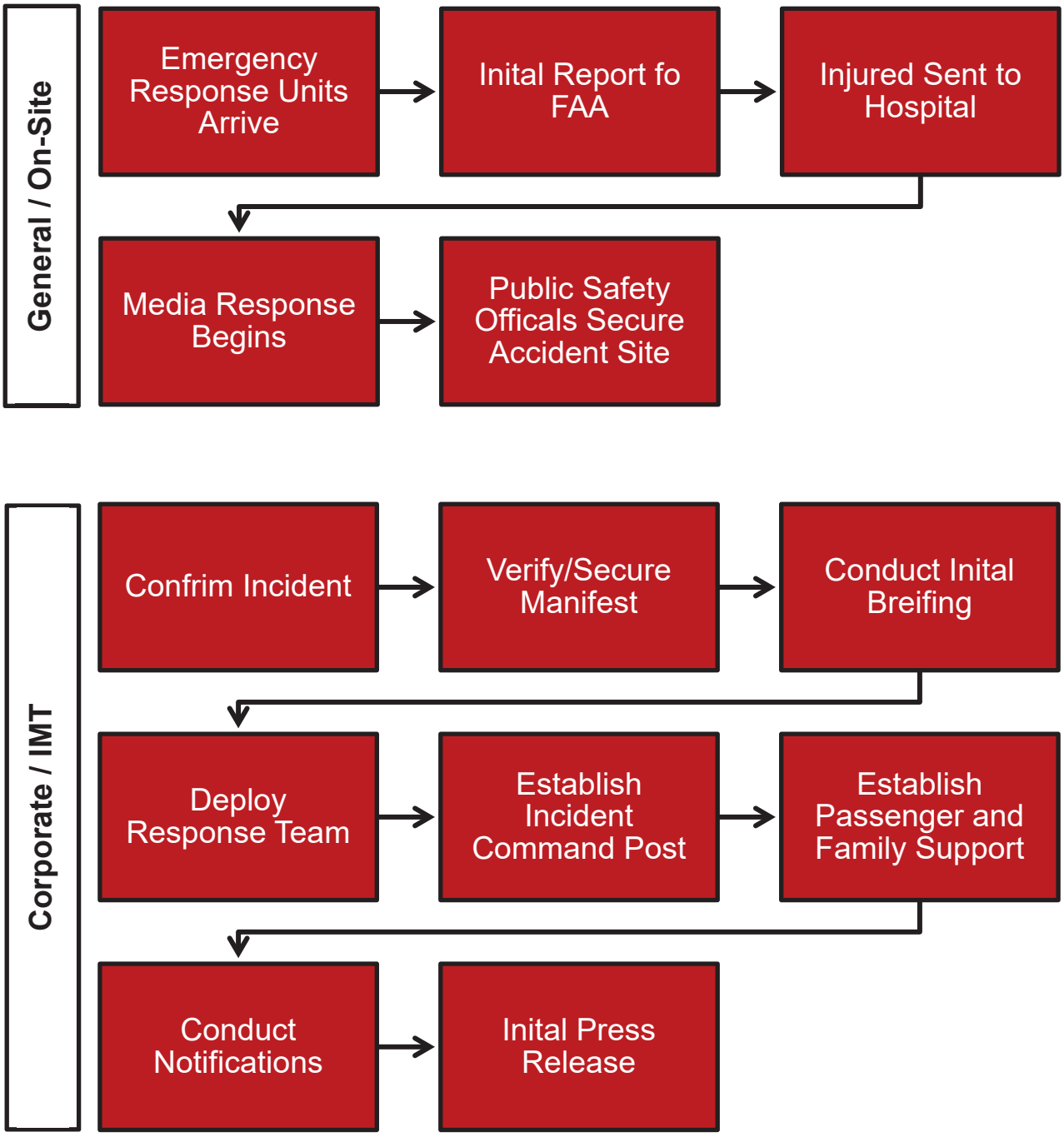
- ☐ Aircraft Tail Number:
- ☐ Aircraft Type/Color:
- ☐ Time of Incident:
- ☐ Damage Description:
- ☐ Location:
- ☐ Nearest Airport:
- ☐ Directions/Key Info:
- ☐ Other Aircraft Involved?:

Aviation Initial Notification Checklist

Date / Time of Call:	Your Name:

Action	
1. Personnel Information	
Name and Injury Status	***Contact Location / Number***
a) b) c) d) e) f) g) h) i) j) k) l) m) n) o)	a) b) c) d) e) f) g) h) i) j) k) l) m) n) o)
2. Rescue Operations / Contacts	
Agency / Name	***Telephone***
a) Local Police: b) State Police: c) Fire Department: d) Rescue: e) Ambulance: f) Helicopter: g) Hospital: h) Hospital: i) Hospital:	a) b) c) d) e) f) g) h) i)

B.4 Initial Response Activities



B.4.1 First Company Representative On-Scene

First Company personnel on-site expected to find out what hospitals involved in response, and location and status of any injured passengers and crew members.

B.4.2 Securing the Incident Scene

Initial security expected to be provided by local or state police until the site is declared safe.

May continue until the completion of the field portion of the accident investigation or may shift to Company responsibility – coordinate with Company Security on-site or Senior Management.

Be sure to hire “off-duty” police officers for site security responsibilities – they have arrest authority (in U.S.). Outside U.S., have Company coordinate security with embassy personnel, and local military/law enforcement agencies.

B.4.3 Verifying/Securing Passenger and Crew Manifests

When an aviation incident occurs, the manifest will provide information on who was aboard the affected aircraft, and it will be very important that this information be closely guarded to prevent its premature release to the public (i.e., before the information is shared with family members). This information will be extremely sensitive and critical to all entities responding to the incident.

If applicable, upon notification of an Aviation Incident involving a Cimarex aviation asset, the Aviation Department Manager will obtain and verify flight manifest.

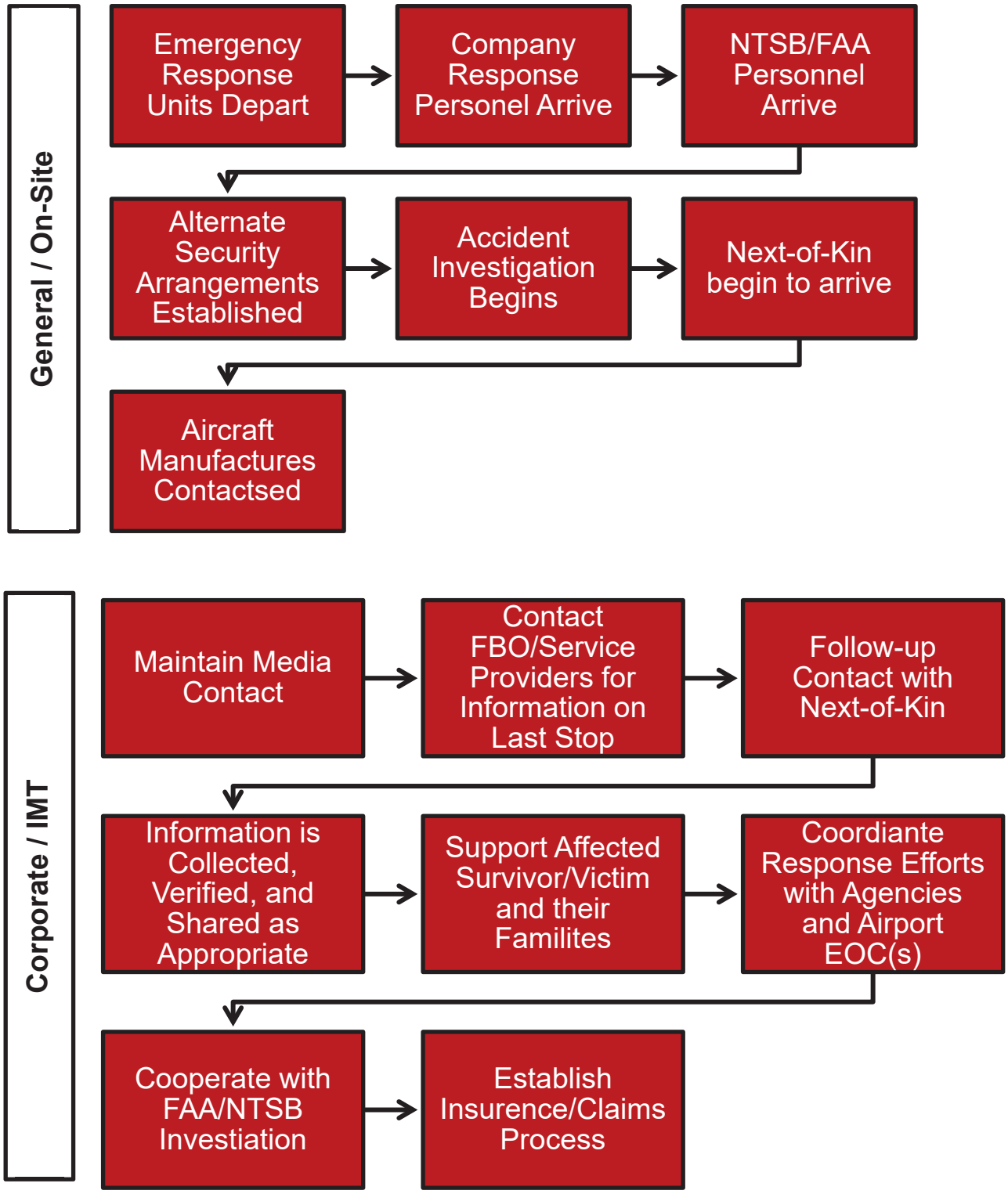
The Aviation Administrative Support will record all names and telephone numbers of all personnel emergency contacts available.

Upon completion of this process the flight manifest will be considered confirmed. The Aviation Department/ Emergency Manager will provide a copy of a CONFIRMED, ANNOTATED passenger list as soon as possible to the Incident Management Team.

B.4.4 Aircraft Maintenance and Pilot Records

Aircraft maintenance and Pilot records are collected and secured for NTSB Accident Investigation.

B.5 Aviation Response Procedures



B.5.1 Response Procedure Checklists

B.5.1.1 Aviation Emergency Manager Checklists

Aviation Emergency Manager Checklist

Accident Verification / Initial Briefing

1. Verification

- ❒ If aviation accident has been verified, request copy of verification report.
- ❒ If no verification has been completed, then perform verification and document on Initial Notification Checklist in **Section B.3.1.**

2. Passenger Manifest

- ❒ Contact Documentation Coordinator for passenger and crew manifest.
- ❒ Ensure no manifest changes were received.
- ❒ Is anyone waiting for passengers or crew members at the destination point?

3. Initial Briefing

- ❒ Gather available personnel, contact by conference call when not in the office.
- ❒ Inform them of the facts known about the incident.
- ❒ Make initial contact assignments:
  - Corporate Notification _____
  - NTSB Notification _____
  - Insurance Company _____
  - _____ _____
- ❒ Set TIME for key management to meet
- ❒ Make initial personnel assignments:
  - Aviation Emergency Manager _____
  - Documentation Coordinator _____
  - Administrative Support _____
  - Deputy AEM _____

Internal / External Notification Directory

1. Company Incident Management Team (IMT)

See **Section 5** of this ERP.

2. National Transportation Safety Board / Federal Aviation Administration

NTSB Communications Center **202-314-6290** immediately upon knowledge of a crash.

Aviation Emergency Manager Checklist

Response Management Checklist

1. Initial Status

- ❒ Passenger Manifest / Cargo List
- ❒ Victim location and status record for each passenger/crew
- ❒ Next-of-Kin notification assignments
- ❒ Next-of-Kin support assignments
- ❒ IMT Personnel Schedule
- ❒ Briefing Schedule – first 3 hours
- ❒ List of important telephone / fax numbers
- ❒ List of Corporate telephone / fax numbers
- ❒ Increased security necessary?
- ❒ NTSB Notified?
- ❒ Corporate notified?
- ❒ Aviation Department personnel notified?
- ❒ Insurance notified?
- ❒ NTSB Form 6120.1 Filed (< ten days)

2. Continual Operations

- ❒ Keep track of key times
- ❒ Take regular breaks
- ❒ Light refreshments – fruit, vegetables, sandwiches, water
- ❒ Monitor personnel for sign of traumatic stress
- ❒ Maintain contact with personnel / Next-of-Kin at the site
- ❒ Set priorities at scheduled briefings
- ❒ Maintain status of open priority actions
- ❒ Maintain files of completed actions
- ❒ Check with department managers on personnel status as appropriate

3. Shift Turnover

- ❒ Relievers to arrive 30 minutes prior for individual turnover – review open and completed actions
- ❒ Both shifts present for turnover brief – review key events and actions, set priorities for 1st hour.
- ❒ Affirm time of next shift change, and any personnel changes
- ❒ Discuss any changes in procedure, or points of contact outside of department

B.5.1.2 Deputy Aviation Emergency Manager Checklists

Deputy Aviation Emergency Manager Checklist

Note:

❒ = One-time activities; check when complete

• = Continual activities

Immediate Action

1. **Records** Support investigation effort by collecting maintenance records of accident aircraft in preparation for turnover to FAA/NTSB

❒ Aircraft Maintenance Log / Deferred Maintenance Log

❒ Minimum Equipment List

❒ Overhaul and inspection records of airframe, engines and equipment

❒ Applicable manufacturer maintenance manuals

IMPORTANT: Ensure Company maintains copies of all documents provided to the investigation team (FAA/NTSB).

Monitoring Maintenance Operations

2. **Emergency Management Participation**

- Maintain ICS-214 for all taskings, actions and communications.
- Support response team personnel.

B.5.1.3 Documentation Coordinator Checklists

DOCUMENTATION COORDINATOR CHECKLIST
Note: ❒ = One-time activities; check when complete • = Continual activities
Immediate Action
1. Manifest
❒ Retrieve and Print Passenger Manifest and trip information
❒ READ Manifest, ensure it is legible
❒ Check for updates to Passenger Manifest
❒ Provide copies of the Passenger Manifest, with changes, to the Aviation Emergency Manager
❒ Provide copies of trip information to Aviation Emergency Manager
❒ Attend Aviation Emergency Manager's initial brief
2. Flight Departure Information
Contact FBO, or Handling Agency and request FAX and hard-copy of records of the following:
❒ Fuel Slip (date / time / volume / truck number / tank number)
❒ Documentation of any maintenance requests / actions
❒ Meteorological report for time of departure
❒ Copies of catering delivery documentation
Response Management
1. General
• Maintain ICS 214 for each Flight Operations/Documentation tasking • Provide Aviation Emergency Manager with information pertaining to the schedule of Company aircraft, e.g. flights in support of response, and flights in support of other Company business.
2. Flight Schedule
• Coordinate modification of flight schedules, as required, to support response efforts. • Coordinate alternate flight support to continue Company operations.
3. Records
• Retrieve, seal and secure pilot training records.

B.5.1.4 Administrative Support Checklists

Administrative Support Checklist

Note:
❒ = One-time activities; check when complete
• = Continual activities

Emergency Management Activation

1. Communications

❒ If on-site ER Command Post is needed, then secure a location and utilize members of the Cimarex IMT.

2. Emergency Management Shift Schedule

❒ Personnel assignments for Shift **A** (Date / Time Period: _____)

- Aviation Emergency Manager _____
- Documentation Coordinator _____
- Administrative Support _____
- Deputy Aviation Emergency Manager _____

❒ Personnel assignments for Shift **B** (Date / Time Period: _____)

- Aviation Emergency Manager _____
- Documentation Coordinator _____
- Administrative Support _____
- Deputy Aviation Emergency Manager _____

Transportation Support

2. Personnel / Supplies / Equipment

- Coordinate transportation of On-Site Support Team members and equipment / supplies, as requested.

3. Family Support Transportation

- Coordinate transportation of passengers and crew family members to the location of the accident, if desired by the family members. If family members do not wish to travel on Company aircraft, then coordinate transportation on charter, or airline carrier (lowest priority). Family support contact when assigned should travel with the family members to the location.
- Coordinate the movement of these passengers and their baggage through representative handling the family liaison effort at the site.

Administrative Support Checklist

Note:

❒ = One-time activities; check when complete

• = Continual activities

Administrative Support

1. Telephone System

- Operate the switchboard for the incoming telephone calls. Document and distribute telephone calls, and messages. Give calls from family members of the crew and passengers top priority.
- Develop a shift schedule for operation of the switchboard.

2. General Activities

❒ Order refreshments for response team members. Fruits, vegetables and light snacks. Keep plenty of liquids available.

❒ Coordinate lodging support for response team members, if needed

❒ Keep adequate supply of general admin. supplies on-hand (pens, file folders, tablets, forms, etc.)

❒ Monitor the response area and call for clean-up times to collect and dispose of members' trash.

❒ Monitor response team members for symptoms of traumatic stress. Alert the Aviation Emergency Manager when appropriate.

B.5.1.5 Public Information Officer Checklists

Public Information Officer Checklist

Note:
- ❒ = One-time activities; check when complete
- • = Continual activities

Immediate Action

1. Notification / Verification

- ❒ Upon receipt of a report that a company aircraft has been involved in an accident, ensure the information is verified (using Initial Notification Checklist) and passed to the Aviation Department Manager.
- ❒ If aviation accident has been verified, request copy of verification report.

2. Initial Briefing

- ❒ Gather available department personnel, contact by telephone (not cellular) when not in the office
- ❒ Inform them of the facts known about the accident.
- ❒ Brief all personnel on proper media responses shown below
- ❒ Make initial contacts:
    - ○ Chief Pilot or Aviation Manager
    - ○ Maintenance Manager or designee
    - ○ Pilots / Maintenance Technicians
    - ○ Base Administrative / Support Personnel

Responses for Request for Information

- "We are in the process of investigating a report of an incident involving one of our aircraft. There is no information available at this time. If the incident is confirmed, informational updates will be provided by [Co.] Public Affairs. They can be reached at [phone #]."
- "[Co. name] confirms that an incident involving one of our aircraft has occurred, however, we are unable to provide any details at this time. The [Co. name] Public Affairs Department will be providing periodic updates on the situation as information becomes available. They can be reached at [phone #]."
- "The focus of our efforts at this time is to attend to the needs of our passengers, crew and their families, and work with the NTSB and local public safety officials to determine the cause and extent of the accident. If you have any questions, please contact [Co. name] Public Affairs Department at [phone #]."

Public Information Officer Checklist

Note:
❒ = One-time activities; check when complete
• = Continual activities

Continuing Operations

❒ **If base of operations was accident aircraft's intended destination, then:**

- Be prepared to meet with personnel expected to meet incoming passengers
- All personnel, other than affected family members, are to be informed using the appropriate level of response listed above
- Family members should be provided a private room, and a call made to;
  - Aviation Emergency Manager (for family of crew) to allow them to hear latest information
  - Corporate (for family of passengers) to allow them to hear the latest information
  - For any family member, provide supportive contact, and call on local clergy or counseling resources, or trained volunteers to support personnel.

❒ **If base is home for aircraft or crewmembers involved, then:**

- Arrange for family notification and family support personnel to initiate their activities
- Complete records segregation, collection and security
- Monitor personnel for indications of traumatic stress, provide information as appropriate to the Aviation Emergency Manager
- Consider stand-down for upcoming maintenance activities and operations

B.5.2 Family Support

Cimarex is dedicated to implementing a comprehensive, coordinated, and compassionate response to an Aviation Incident, Cimarex seeks to:

- Act in the best interest of survivors, survivors' families and/or victim families.
- Response to survivors, survivor families and victim families with sensitivity, dignity, and respect.
- Respect and be sensitive to the cultural and religious background of survivors, survivor families and victim families
- Meet the needs of survivors, survivor families and victim families
- Provide mental and emotional support to Cimarex Employees, including those asked to work with survivors, survivor families and victim families.

When an Aviation Incident has occurred, family and friends of those onboard may be at or near the vicinity of the originating airport, or they may come to the airport seeking information including but not limited to:

- Confirmation that their loved one/friend was onboard the affected aircraft.
- Status of their loved one/friend

As quickly as possible, private areas which family and friends of the passengers can obtain information and support need to be secured.

The Incident Management Team should work with Airport Liaison/Public Information Officer to arrange for such accommodations.

Upon notification of an Aviation Incident, the Incident Management Team will dispatch an Airport Liaison to the originating and/or departing airport(s) to coordinate.

As family members arrive to the Family Reception Area, they will be met by an individual assigned to the reception task and asked to provide basic information on who that are, the name of their loved one/friend onboard the affected aircraft. With this information, family members/friend will be introduced to the Family Assistance Representative who will:

- Provide psychological support
- As information is received, kept them informed regarding the status of their loved on
- Identify and address family member/friend issues and needs to the maximum extent possible.

As quickly as possible, families will be transported from the Airport Based Family Reception Area to a designated Family Support Hotel. The IMT Logistics Section will arrange for escorted, secure ground transportation arrangement and hotel accommodations.

Provide notification to family members prior to releasing passenger names to the public. Family members will be given appropriate time to notify other family members and friends prior to public release of the victim's name.

B.5.3 Legal/Claims/Insurance Information

Insurance company will mobilize to support on-site activities, pay Company for hull damage or loss, and handle any third party claims.

Any affected Property / Building Owners will be introduced to Company's insurance representative at the scene.

B.5.4 Responder Incident Stress Management

When responding to an Aviation Incident responder may experience secondary trauma resulting from exposure to the stress of others that are directly involved such as families and survivors. To prevent exposure to the effects of secondary trauma and potential burnout, the following should be considered throughout the response.

B.5.4.1 Responder Stress Management

Responder Stress Management	
✓	Tell your team leader if a relative or friend is a victim
✓	Try to get adequate sleep.
✓	Eat balanced meals on a regular basis.
✓	Exercise, even a little can help.
✓	Avoid increased alcohol, caffeine, or nicotine since these make it harder to manage stress.
✓	Watch for signs of stress: • Uncommon headaches • Sleeping troubles • Irregular aches and pains • Depression or irritability • Nervous feelings and/or an upset stomach • Abnormal fatigue and/or lack of energy • Difficulty concentrating
✓	Understand responsibilities. Keep team leaders and members advised of your responsibilities and conditions.
✓	Do not take anger and frustration personally (from families, survivors, and/or co-workers). Realize that people are distressed due to the incident and often react differently than expected.
✓	Talk to other response team members about your feelings and reactions. They are also going through the same situations and are, therefore, a valuable support group.
✓	Take full advantage of debriefing and professional support.
✓	Be flexible. No two incidents are ever the same, so it is difficult to prepare for every scenario. Use your base knowledge and training to help in dealing with an irregular situation.

B.5.4.2 Post Response Stress Management

Post Response Stress Management	
✓	Use support systems. Spend time with family and friends
✓	Continue to talk to others whop responded to the incident.
✓	Talk about your emotions with family, friends, co-workers, clergy, etc. Understand that it is normal to need to repeat your story over and over. Avoid withdrawal or isolation.
✓	Talk to professional counselors to help in your transition from response life to normal life.
✓	Understand the effects that the accident has on people and that these reactions are normal. Understand that people recover at different rates.
✓	Avoid sudden life changes. Do not become overly busy in an attempt to escape your feelings. Maintain a regular schedule and avoid working overtime. Continue to exercise and so things that you enjoy.
✓	Avoid new or increased use of drugs, alcohol, nicotine, or sugar. These chemicals will decrease your ability to recover and cope with the effects of the accident.
✓	Understand that because of what you've experienced, daily life problems may now seem somewhat trivial. Keep in mind, however, family and friends do not have the same point of reference. Respect the fact that mundane issues may be important to them
✓	Ask yourself what you have learned, how you have grown as a person, and how you helped people

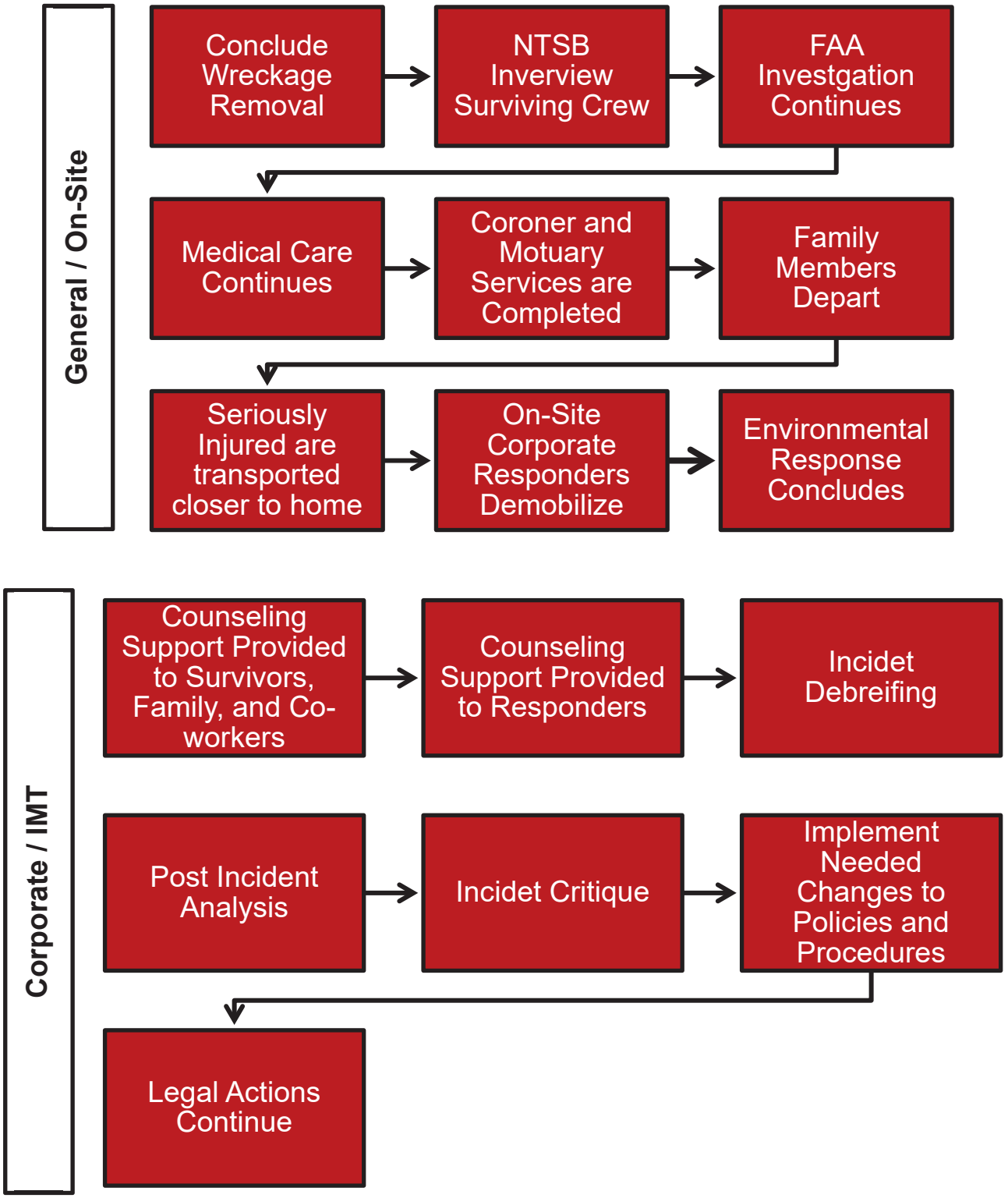
B.6 NTSB Media Relations Guidelines

Information should be given to the NTSB first under any circumstances.

Appropriate Talking Points (If Known and Approved)	
The Aircraft	
✓	Registration and serial numbers
✓	Dates of manufacture and acquisition
✓	Cabin configuration and cargo capacity
✓	Systems aboard the aircraft
✓	When it last underwent a major inspection and its general inspection schedule
✓	Whether it is fly-by-wire or not
✓	How many of these aircraft you have in your fleet
✓	Manifest information like numbers of passengers aboard (in-lap infants if known) and cargo listed on the manifest.
The Crew	
✓	Their names (and personal information at your discretion, like their ages)
✓	How long they've been employed by you
✓	What aircraft they're type-rated for
✓	Where they were on their trip
✓	What previous legs they flew that day and how long they'd been on duty that day.
The Incident	
✓	When you were notified of the accident and how you have responded, both with family matters and in providing support and cooperation to the NTSB in its investigation.
✓	Only general circumstances of the accident should be discussed; for example, it was raining, the flight was on time or 30 minutes late, etc.
The Company	
✓	In general terms, factual information about your corporate philosophy and structure, and practices on training, maintenance and operations.
✓	Company size, number of employees
✓	History (including previous accidents)
✓	Business alliances,
✓	Size and makeup of aircraft fleet.

Talking Points to Avoid	
The Aircraft	
✓	Characterizations of what is in the maintenance records or any other characterization that calls for a judgment or implies involvement or non-involvement in the accident
✓	Any speculation about the possible role the plane's components might have played
✓	Any discussion of wreckage patterns or aircraft breakup.
The Crew	
✓	Actions of the crew leading up to the accident,
✓	Any relationship between crew training and the accident
✓	Any speculation about what the crew might have done or not done during the accident sequence or to prevent the accident.
✓	While there's nothing wrong with saying the captain is a good pilot (why else would you employ him or her?), you should stay away from statements that suggest the unlikelihood of the crew doing something wrong, or that implicitly or explicitly point fingers at others.
The Incident	
✓	Descriptions of the plane's "final moments,"
✓	What the investigation will focus on or how it will be structured
✓	Descriptions about wreckage path or suppositions about break-up sequence
✓	Announcements about finding flight recorders and how they will be handled
✓	Descriptions of airport equipment and capabilities
✓	Speculation on the role elements like the weather or air traffic control might have played in the accident
✓	No judgments about what the issues in the investigation are going to be and nothing that implicitly or explicitly points the finger at another potential party to the investigation.
Family Assistance	
✓	Avoid commenting on areas that the medical examiner or coroner should officially address. Such areas include:
✓	Identification procedures and length of time it may take to complete all positive identifications
✓	The search and recovery process
✓	Condition of recovered remains
✓	It is also important to let the medical examiner or coroner officially release the names of the fatalities that have been positively identified. Once this information is released by the medical examiner/coroner, the carrier is free to discuss this with the media

B.7 Incident Termination



B.7.1 Demobilization

Aviation IMT Roles will be demobilized at Aviation Emergency Manager's discretion – when level of response activity allows

Documentation and personnel tracking methods for demobilization – include briefings and contact numbers will be established by the IMT Planning Section.

B.7.2 Response Termination

See Section 6 of this plan.

Appendix C - Glossary / Acronyms

Term	Definition
A	
Access/Staging Areas	Designated areas offering access to spill sites for the gathering and deployment of spill response equipment and personnel.
Activate	The process of mobilizing personnel and/or equipment within the response organization to engage in response operations.
Adverse Weather	The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operation environment. Factors to consider include significant wave height, ice conditions, temperatures, weather-related visibility, and currents within the area in which the systems or equipment are intended to function.
Agency	A division of government with a specific function offering a particular kind of assistance. In ICS, agencies are defined either as jurisdictional (having statutory responsibility for incident management) or as assisting or cooperating (providing resources or other assistance).
Agency Representative	Individual assigned to an incident from an assisting or cooperating agency that has been delegated full authority to make decisions on all matters affecting his/her agency's participation at the incident.
Allocated Resources	Resources dispatched to an incident.
API	American Petroleum Institute
Area Contingency Plan (ACP)	As defined by Sections 311(a)(18) and (j)(4) of CWA, as amended by OPA, means the entity appointed by the President consisting of members from Federal, State, and local agencies with responsibilities that include preparing an Area Contingency Plan for the area designated by the President. The Area Committee may include ex-officio (i.e., non-voting) members (e.g., industry and local interest groups).
Assessment	The evaluation and interpretation of measurements and other information to provide a basis for decision-making.
Assigned Resources	Resources checked-in and assigned work tasks on an incident.
Assignments	Tasks given to resources to perform within a given operational period, based upon tactical objectives in the Incident Action Plan.

Term	Definition
Assistant	Title for subordinates of the Command Staff positions. The title indicates a level of technical capability, qualifications and responsibility subordinate to the primary positions. Assistants may also be used to supervise activities at camps.
AST	Aboveground Storage Tank
Available Resources	Resources assigned to an incident, checked in, and available for a mission assignment, normally located in a Staging Area.
B	
Barrel	Measure of space occupied by 42 U.S. gallons at 60 degrees Fahrenheit.
Base	The location as which the primary logistics functions are coordinated and administered. The Incident Command Post may be collocated with the base. There will only be one base per incident.
BBL	Barrel (Unit of Volume Equal to 42 Gallons)
BLM	Bureau of Land Management (USDOI)
Blowout	A sudden release of oil and gas from a well.
BPD	Barrels Per Day
BPH	Barrels Per Hour
Branch	The organizational level having functional/geographic responsibility for major incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section.
C	
ºC	Degrees Centigrade
Certification	The act of confirming that an exercise: 1) was completed, 2) met the required objectives, and 3) was evaluated to determine effectiveness of the response plan based on exercise performance.
CFM	Cubic Feet per Minute
CFR	Code of Federal Regulations
Chain of Command	A series of command, control, executive, or management positions in hierarchical order of authority.

Term	Definition
CHEMTREC	Chemical Transportation Emergency Center which provides information and/or assistance to emergency responders. Can be reached 24 hours a day by calling 800-424-9300.
Chief	The ICS title of individuals responsible for command of functional sections: Operations, Planning, Logistics and Finance/Administration.
Command Post	A site located in the cold zone where response decisions and activities can be planned, coordinated, and managed. The Incident Commander and regulatory On-Scene Coordinator(s) may operate from this location.
Command Staff	It consists of the Information Officer, Safety Officer and Liaison Officer, who report directly to the Incident Commander. They may have an assistant or assistants, as needed.
Communications Equipment	Equipment that will be utilized during response operations to maintain communication between the Company employees, contractors, Federal/State/Local agencies. (Radio/telephone equipment and links)
Communications Unit	An organizational unit in the Logistics Section responsible for providing communication services at an incident or an EOC. A Communications Unit may also be a facility (e.g., a trailer or mobile van) used to support an Incident Communications Center.
Contamination Reduction Zone	The area between the contaminated zone and the clean zone. This area is designed to reduce the probability that can clean zone will become contaminated. Also known as the warm zone.
Contingency Plan	A document used by (1) federal, state, and local agencies to guide their planning and response procedures regarding spills of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies occurring upon their vessels or at their facilities.
Convergence Line	A line on the water surface where floating objects and oil collect. A convergence can be in the interface between two different types of bodies of water, or it can be caused by a significant depth change, tidal changes or other common phenomena. Convergences are common in the marine environment.
Coordinate	To advance systematically an analysis and exchange of information among principals who have or may have a need to know certain information to carry out specific incident management responsibilities.

Term	Definition
Cost Unit	Functional unit within the Finance/Administration Section responsible for tracking costs, analyzing cost data, making cost estimates and recommending cost-saving measures.
Critical Areas	Areas which, if impacted by a spill, may result in threats to public health and/or safety.
CRZ	Contamination Reduction Zone
CWA	Clean Water Act of 1977
D	
Damage Assessment	The process of determining and measuring damages and injury to the human environment and natural resources, including cultural resources. Damages include differences between the conditions and use of natural resources and the human environment that would have occurred without the incident, and the conditions and use that ensued following the incident. Damage assessment includes planning for restoration and determining the costs of restoration.
DECON	Decontamination
Decontamination	The removal of hazardous substances from personnel and equipment necessary to prevent adverse health effects.
Demobilization Unit	Functional unit within the Planning Section responsible for assuring orderly, safe and efficient demobilization of incident resources.
Deputy	A fully qualified individual who, in the absence of a superior, could be delegated the authority to manage a functional operations or perform a specific task. In some cases, a Deputy could act as relief for a superior, and, therefore, must be fully qualified in the position. Deputies can be assigned to the Incident Commander, General Staff and Branch Directors.
Director	The ICS title for individuals responsible for supervising a Branch.
Discharge (Spill)	Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, condensate or other material that may pose a hazard, but excludes discharges in compliance with a permit.
Dispatch	The ordered movement of a resource or resources to an assigned operational mission or an administrative move from one location to another.
Dispatch Center	A facility from which resources are directly assigned to an incident.

Term	Definition
Dispersion	The breaking up of an oil slick.
Division	The organization level having responsibility for operation within a defined geographic area or with functional responsibility. The Division level is organizationally between the Task Force/Strike Team and the Branch.
Documentation Unit	Functional unit within the Planning Section responsible for collecting, recording and safeguarding all documents relevant to the incident.
DOT	Department of Transportation
DPS	Department of Public Safety
E	
EBS	Emergency Broadcast System
Economically Sensitive Areas	Areas of explicit economic importance to the public that due to their proximity to potential spill sources may require special protection and include, but are not limited to; potable and industrial water intakes; locks and dams; and public and private marinas
EMA	Emergency Management Agency
Emergency	Absent a Presidential declared emergency, any incidents(s), human-caused or natural, that requires responsive action to protect life or property. Under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, an emergency means any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States.
Emergency Medical Technician (EMT)	A health-care specialist with particular skills and knowledge in pre-hospital emergency medicine.
Emergency Response	The response to any occurrence that results, or is likely to result in a release of a hazardous substance due to an event.
Emergency Service	Those activities provided by the state and local government to prepare for and carry out any activity to prevent, minimize, respond to, or recover from an emergency.
EMS	Emergency Medical Service
EMT	Emergency Medical Technician

Term	Definition
EPA	Environmental Protection Agency (United States)
ERT	Emergency Response Team
ESD	Emergency Shutdown
ETA	Estimated Time of Arrival
Evacuation	Organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.
Event	A planned, non-emergency activity. ICS can be used as the management system for a wide range of events, e.g., parades, concerts, or sporting events.
Exclusion Zone	The area where contamination does or may occur.
Explosion	An explosion is a rapid increase in volume and release of energy in an extreme manner, usually with the generation of high temperatures and the release of gases.
F	
FAA	Federal Aviation Administration
Facilities Unit	Functional unit within the Support Branch of the Logistics Section that provides fixed facilities for the incident. These facilities may include the Incident Base, feeding areas, sleeping areas, sanitary facilities, etc.
Facility	Any pipeline, structure, equipment, or device used for handling oil including, but not limited to, underground and aboveground storage tanks, well heads, impoundments, mobile or portable drilling or workover rigs.
Facility Operator	The person who owns, operates, or is responsible for the operation of the facility.
FAX	Facsimile Machine
Federal	Of or pertaining to the Federal Government of the United States of America.
Federal On-Scene Coordinator (FOSC)	The pre-designated Federal On-Scene Coordinator operating under the authority of the National Contingency Plan (NCP).
Federal Regional Response Team	The federal response organization (consisting of representatives from selected federal and state agencies) which acts as a regional body responsible for planning and preparedness before and oil spill occurs and providing advice to the FOSC in the event of a major or substantial spill.

Term	Definition
FEMA	Federal Emergency Management Administration
Field Operations Guide (FOG)	A pocketsize manual of guidelines regarding application of the Incident Command System.
Finance / Administration Section	The Section responsible for all incident costs and financial considerations. Includes the Time Unit, Procurement Unit, Compensation/Claims Unit and Cost Unit.
Fire	Fire is the rapid oxidation of a material in the chemical process of combustion, releasing heat, light, and various reaction products. Slower oxidative processes like rusting or digestion are not included by this definition.
First Responders / First Response Agency	A public health or safety agency (e.g., fire service or police department) charged with responding to an incident during the emergency phase and alleviating immediate danger to human life, health, safety, or property.
Food Unit	Functional unit within the Service Branch of the Logistics Section responsible for providing meals for incident personnel.
FOSC	Federal On-Scene Coordinator
Function	In ICS, function refers to the five major activities in the ICS, i.e., Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, e.g., “the planning function.”
FWPCA	Federal Water Pollution Control Act
G	
GAL	Gallons
General Staff	The group of incident management personnel comprised of: Incident Commander, Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief.
Geographic Information Systems (GIS)	An electronic information system that provides a geo-referenced data base to support management decision-making.
GPM	Gallons per Minute
Ground Support Unit	Functional unit within the Support Branch of the Logistics Section responsible for fueling, maintaining and repairing vehicles, and the ground transportation of personnel and supplies.

Term	Definition
Groundwater	Subsurface water that fills available opening in rock or soil materials such that they may be considered water saturated under hydrostatic pressure.
Group	Groups are established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. Groups are located between Branches (when activated) and Single Resources in the Operations Section.
GT	Gross Tons
H	
H_2S	Hydrogen Sulfide
Handle	To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce.
Harmful Quantity of Oil	The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen or discoloration upon water, land, shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.
Hazardous Chemicals	All chemicals that constitute a physical hazard or a health hazard as defined by 29 CFR 1910.1200, with the exceptions listed in section 311(e). This term comprises approximately 90 percent of all chemicals.
Hazardous Material	Any non-radioactive solid, liquid, or gaseous substance which, when uncontrolled, may be harmful to humans, animals, or the environment. Including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants.
Hazardous Substance	Any substance designed as such by the Administrator of the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, regulated pursuant to Section 311 of the Federal Water Pollution Control Act, or discharged by the TWC.

Term	Definition
Hazardous Waste	Any solid waste identified or listed as a hazardous waste by the Administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C., Section 6901, et seq as amended. The EPA Administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 of the Code of Federal Regulations, Part 261, Subparts C and D respectively.
HAZCOM	Hazard Communication
HAZMAT	Hazardous Materials
HAZMAT	Hazardous materials or hazardous substances, exposure to which may result in adverse effects on health or safety of employees.
HAZWOPER	Hazardous Waste Operations and Emergency Response Regulations published by OSHA to cover worker safety and health aspects of response operations.
Health Hazard	A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees.
Heat Stress	Dangerous physical condition caused by over exposure to extremely high temperatures.
Helibase	A location within the general incident area for parking, fueling, maintaining and loading helicopters.
Helispot	A location where a helicopter can take off and land. Some helispots may be used for temporary loading.
HQ	Headquarters
HR	Human Resources
Hypothermia	Dangerous physical condition caused by over exposure to freezing temperatures.
I	
IDLH	Immediate Danger to Life or Health
IH	Industrial Hygienist
Incident	Any event that results in the spill or release of oil or hazardous materials, or fire / explosion.

Term	Definition
Incident Action Plan (IAP)	The Incident Action Plan, which is initially prepared at the first meeting, contains general control objectives reflecting the overall incident strategy, and specific action plans for the next operational period. When complete, the Incident Action Plans will include a number of attachments.
Incident Area	Legal geographical area of the incident including affected area(s) and traffic route(s) to corresponding storage and disposal sites.
Incident Briefing Meeting	Held to develop a comprehensive, accurate, and up-to-date understanding of the incident, nature of status of control operations, and nature and status of response operations; ensure the adequacy of control and response operations; begin to organize control and response operations; and prepare for interactions with outside world.
Incident Command Post (ICP)	The location at which the primary command functions are executed; may be collocated with the incident base.
Incident Command System (ICS)	A response system or organization by which the response to a spill is categorized into functional components and responsibility for each component assigned to the appropriate individual or agency.
Incident Commander (IC)	The one individual in charge at any given time of an incident. The IC will be responsible for establishing a unified command with all on-scene coordinators.
Incident Management Team (IMT)	The IC and appropriate Command and General Staff personnel assigned to an incident.
Incident Objectives	Statements of guidance and direction necessary for the selection of appropriate strategies, and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.
Incident Situation Display	The Situation Unit is responsible for maintaining a display of status boards that communicate critical incident information vital to establishing and maintaining an effective command and control environment.

Term	Definition
Industry	For the purpose of these guidelines, industry means the oil, natural gas, and hazardous substance industry required to submit response plans and comply with exercise requirements, as specified in appropriate vessel, facility, pipeline and Outer Continental Shelf platform regulations. The USCG, EPA, PHMSA and BOEMRE administer these regulations.
Initial Action	The actions taken by those responders first to arrive at an incident site.
Information Officer (IO)	A member of the Command Staff responsible for providing incident information to the public and news media or other agencies or organizations. There is only one Information Officer per incident. The Information Officer may have assistants.
Initial Notification	The process of notifying necessary company personnel and Federal/State/Local agencies that a spill has occurred, including all pertinent available information surrounding the incident.
Initial Response Actions	The immediate actions that are to be taken by the spill observer after detection of a spill.
Injury	an abnormal condition or disorder which ranges from minor cuts to amputations.
Inland Area	The area shoreward of the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines) defined in 80.740 – 80.850 of Title 33 of the CFR. The inland area does not include the Great Lakes.
Inland Waters	State waters not considered coastal waters; lakes, rivers, ponds, streams, underground water, et. al.
Inland Zone	The environment inland of the coastal zone excluding the Great Lakes, and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.
Interim Storage Site	A site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges and other vehicles used to store waste until transport begins.
IRT	Initial Response Team
J	

Term	Definition
Joint Information Center (JIC)	A facility established within, or near, the Incident Command Post where the Information Officer and staff can coordinate and provide incident information to the public, news media, and other agencies or organizations. The JIC is normally staffed with representatives from the FOSC, SOSC and RP.
Joint Information System (JIS)	Integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during crisis or incident operations. The mission of the JIS is to provide a structure and system for developing and delivering coordinated interagency messages; developing, recommending, and executing public information plans and strategies on behalf of the IC; advising the IC concerning public affairs issues that could affect a response effort; and controlling rumors and inaccurate information that could undermine public confidence in the emergency response effort.
Jurisdiction	A range or sphere of authority. At an incident, public agencies have jurisdiction related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., city, country, state, or Federal boundary lines), or functional (e.g., police department, health department, etc.).
JOC	Joint Operations Center
JRT	Joint Response Team
K	
Kw	Kilowatt
L	
Lead Agency	The government agency that assumes the lead for directing response.
Lead Federal Agency	The agency that coordinates the federal response to incidents on navigable waters. The lead Federal agencies are: • U.S. Coast Guard (USCG): Oil and chemically hazardous materials incidents on navigable waters. • U.S. Environmental Protection Agency (EPA): Oil and chemically hazardous materials incidents on inland waters.
Lead State Agency	The agency that coordinates state support to Federal and/or Local governments or assumes the lead in the absence of Federal response.

Term	Definition
Leader	The ICS title for an individual responsible for a Task Force/Strike Team or functional Unit.
LEL	Lower Explosive Limit
LEPC	Local Emergency Planning Committee
Liaison	A form of communication for establishing and maintaining mutual understanding and cooperation.
Liaison Officer (LO)	A member of the Command Staff responsible for coordinating with stakeholder groups and representatives from assisting and cooperating agencies.
Local Emergency Planning Committees (LEPC)	Provide input regarding a state's implementation of federal law. LEPC's provide local emergency planning, representing a variety of disciplines interested in hazardous materials management designed to help the State Chemical Emergency Planning and Response Commission (CEPRC) fit the needs of a particular region. CEPRC's are usually established by an Executive Order to fill the requirement in Title III, the Federal Superfund Amendments and Reauthorization Act of 1986. The act requires that each governor establish a state emergency response commission to address a variety of hazardous materials planning and community right-to-know issues.
Local Government	A county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; an Indian tribe or authorized tribal organization, or in Alaska a Native village or Alaska Regional Native Corporation; a rural community, unincorporated town or village, or other public entity. See Section 2 (10), Homeland Security Act of 2002, Pub. L. 107-296, 116 Stat. 2135 (2002).
Local Response Team	Designated Facility individuals who will fulfill the roles determined in the oil spill response plan in the event of an oil or hazardous substance spill. They will supervise and control all response and cleanup operations.
Logistics	Providing resources and other services to support incident management.
Logistics Section	The Section responsible for providing facilities, services and materials for the incident.

Term	Definition
LOSC	Local On-Scene Coordinator
LPG	Liquefied Petroleum Gas
LRT	Local Response Team
M	
Management by Objective	A management approach that involves a four-step process for achieving the incident goal. The Management by Objectives approach includes the following: establishing overarching objectives; developing an issuing assignments, plans, procedures, and protocols: establishing specific, measurable objectives for various incident management functional activities; and documenting results to measure performance and facilitate corrective action.
Managers	Individuals within ICS organizational units who are assigned specific managerial responsibilities (e.g., Staging Area Manager or Camp Manager).
Maximum Extent Practicable	The limitations used to determine oil spill planning resources and response times for on-water recovery, shoreline protection, and cleanup for worst-case discharges from onshore non-transportation-related facilities in adverse weather. It considers the planned capability to respond to a worst case discharge in adverse weather, as contained in a response plan that meets the requirements in 112.20 or in a specific plan approved by the Regional Administrator.
Medical Unit	Functional unit within the Service Branch of the Logistics Section responsible for developing the Medical Plan, and for providing emergency medical treatment for incident response personnel.
Message Center	The message center is part of the Communications Center and collocated with or adjacent to it. It receives, records, and routes information about resources reporting to the incident, resource status, and handles administration and tactical traffic.

Term	Definition
Mitigation	The activities designed to reduce or eliminate risks to persons or property or to lessen the actual or potential effects or consequences of an incident. Mitigation measures may be implemented prior to, during, or after an incident. Mitigation measures are often informed be lessons learned from prior incidents. Mitigation involves ongoing actions to reduce exposure to, probability of, or potential loss from hazards. Measures may include zoning and building codes, floodplain buyouts, and analysis of hazard-related data to determine where it is safe to build or locate temporary facilities. Mitigation can include efforts to educate governments, business, and the public on measures they can take to reduce loss and injury.
Mobilization	The process and procedures used by all organizations: Federal, State, Local, and Tribal for activating, assembling, and transporting all resources that have been requested to respond to or support an incident.
MOU	Memorandum of Understanding
Mutual-Aid Agreement	Written agreement between agencies and/or jurisdictions that they will assist one another on request, by furnishing personnel, equipment, and/or expertise in a specified manner.
N	
National	Of a nationwide character, including the Federal, State, local, and tribal aspects of governance and polity.
National Contingency Plan	The plan prepared under the Federal Water Pollution Control Act (33 United State Code SS1321 et seq) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 United State Code SS9601 et seq), as revised from time to time.
Natural Gas	Natural gas is a gas consisting primarily of methane, typically with 0-20% higher hydrocarbons (primarily ethane).

Term	Definition
National Incident Management System (NIMS)	A system mandated by HSPD-5 that provides a consistent nationwide approach for Federal, State, local and tribal governments; the private-sector, and nongovernmental organizations to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. To provide for interoperability and compatibility among Federal, State, local, and tribal capabilities, the NIMS includes a core set of concepts, principles, and terminology. HSPD-5 identifies these as the ICS; multi-agency coordination systems; training; identification and management of resources (including systems for classifying types of resources); qualification and certification; and the collection, tracking, and reporting of incident information and incident resources.
National Response Plan	A plan mandated by HSPD-5 that integrates Federal domestic prevention, preparedness, response, and recovery plans into one all-discipline, all-hazards plan.
National Response System (NRS)	Is the mechanism for coordinating response actions by all levels of government in support of the OSC. The NRS is composed of the NRT, RRTs, OSC, Ara Committees, and Special Teams and related support entities.
Natural Resource	Land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other resources belonging to, managed by, held in trust by, appertaining to or otherwise controlled by the state, federal government, private parties, or a municipality.
Navigable Waters	As defined in section 502(7) of the FWPCA, and includes: (1) all navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L 92-500), and tributaries of such waters; (2) interstate waters; (3) intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and (4) intrastate lakes, rivers, and streams from which fish or shellfish.
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NM	Nautical Miles
NOAA	National Oceanic and Atmospheric Administration
Non-Crude Oil	Any oil other than crude oil.

Term	Definition
Non-Persistent or Group I Oil	A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions: 1. At least 50 percent of which by volume distill at a temperature of 340°C (645°F); and 2. At least 95 percent of which by volume distill at a temperature of 370°C (700°F).
Non-Petroleum Oil	Oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils.
NRC	National Response Center
NRT	National Response Team
O	
Oil or Oils	Naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum gasoline, fuel oil, diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 CFR 302 under Section 101(14) of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by P.L. 99-499.
Oil Spill Cooperative	Multi-company cooperative organization developed by industry to assist with oil spill response and clean up. Typically, manpower and equipment are identified by a company on a voluntary basis.
Oil Spill Removal Organization (OSRO)	An entity that provides oil spill response resources, and includes any for-profit or not-for-profit contractor, cooperative, or in-house response resources that have been established in a geographic area to provided required response resources.
Oily Waste	Oil-contaminated waste resulting from an oil spill or spill response operations.
On Scene Coordinator (OSC)	The federal official pre-designated by EPA or the USCG to coordinate and direct federal responses under subpart D, or the official designated by the lead agency to coordinate and direct removal actions under subpart E of the National Contingency Plan.
On-site	The area extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a response action.

Term	Definition
OPA 90	Federal Oil Pollution Act of 1990
Operating Area	The rivers and canals, inland, near shore, Great Lakes, or offshore geographic location(s) in which a facility is handling, storing, or transporting oil.
Operating Environment	Refers to Rivers and Canals, Inland, Great Lakes, or Ocean. These terms are used to define the condition in which response equipment is designed to function.
Operational Period	The period of time scheduled for execution of a given set of operational actions specified in the Incident Action Plan. Operational Periods can be various lengths, usually not over 24 hours.
Operations Section	Responsible for all operations directly applicable to the primary mission. Directs unit operational plans preparation, requests or releases resources, makes expedient changes to the Incident Action Plan (as necessary) and reports such to the Incident Commander. Includes the Recovery and Protection Branch, Emergency Response Branch, Air Operations Branch, and Wildlife Branch.
ORT	On-Site Response Team
OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration (USDL)
OSIC	On-Scene Incident Commander
OSLTF	Oil Spill Liability Trust Fund
OSRO	Oil Spill Removal Organization
Out of Service Resources	Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons.
Owner or Operator	Any person, individual, partnership, corporation, association, governmental unit, or public or private organization of any character.
P	
PEL	Permissible Exposure Limit

Term	Definition
Persistent Oil	Under OPA 90, persistent oils are petroleum-based oils that do not meet the distillation criteria for a non-persistent oil. Persistent oils are classified based on a specific gravities as follows: • Group II – specific gravity less than .85; • Group III – specific gravity between .85 and less than .95; • Group IV – specific gravity .95 to and including 1.0.; and • Group V – specific gravity greater than 1.0.
PIA	Post Incident Analysis
Plan	Spill response, clean-up, and disposal contingency plan.
Planning Meeting	A meeting, held as needed throughout the duration of an incident, to select specific strategies and tactics for incident control operations and for service and support planning.
Planning Section	Responsible for collecting, evaluating and disseminating tactical information related to the incident, and for preparing and documenting Incident Action Plans. The section also maintains information on the current and forecast situation, and on the status of resources assigned to the incident. Includes the Situation, Resource, Environmental, Documentation, and Demobilization Units, and Technical Specialists.
Post Incident Analysis	Detailed review of an incident to establish a clear picture of events that took place during an incident.
Post-Emergency Response	The portion of a response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the sites has begun.
PPE	Personal Protection Equipment
PPM	Parts Per Million
PREP	(National) Preparedness for Response Exercise Program

Term	Definition
Preparedness	The range of deliberate, critical tasks and activities necessary to build, sustain, and improve the operational capability to prevent, protect against, respond to, and recover from domestic incidents. Preparedness is a continuous process. Preparedness involves efforts at all levels of governmental and between government and private-sector and nongovernmental organizations to identify threats, determine vulnerabilities, and identify required resources. Within the NIMS, preparedness is operationally focused on establishing guidelines, protocols, and standards for planning, training and exercises, personnel qualification and certification, equipment certification, and publication management.
Prevention	Actions to avoid an incident or to intervene to stop an incident from occurring. Prevention involves actions to protect lives and property. It involves applying intelligence and other information to a range of activities that may include such countermeasures as deterrence operations; heightened inspections; improved surveillance and security operations; investigations to determine the full nature and source of the threat; public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and, as appropriate, specific law enforcement operations aimed at deterring, preempting, interdicting, or disrupting illegal activity and apprehending potential perpetrators and bringing them to justice.
Primary Response Contractor(s)	An individual, company, or cooperative that has contracted directly with the plan holder to provide equipment and/or personnel for the containment or cleanup of spilled oil.
Private Sector	Organizations and entities that are not part of any governmental structure. It includes for-profit and not-for-profit organizations, formal and informal structures, commerce and industry, and private voluntary organizations (PVO).
Processes	Systems of operations that incorporate standardized procedures, methodologies, and functions necessary to provide resources effectively and efficiently. These include resource typing, resource ordering and tracking, and coordination.
Procurement Unit	Functional unit within the Finance/Administration Section responsible for financial matters involving vendor contracts.
PSI	Pounds Per Square Inch

Term	Definition
Public Information Officer (PIO)	A member of the Command Staff responsible for interfacing with the public and media or with other agencies with incident-related information requirements.
Q	
Qualification and Certification	This subsystem provides recommended qualification and certification standards for emergency responder and incident management personnel. It also allows the development of minimum standards for resources expected to have an interstate application. Standards typically include training, currency, experience, and physical and medical fitness.
Qualified Individual(QI)	An English-speaking representative(s) of the facility identified in the plan, located in the United States, available on a 24-hour basis, able to arrive at the facility in a reasonable time, familiar with implementation of the facility response plan, and trained in the responsibilities of the Qualified Individual under the response plan. This person must have a document from the owner or operator designating them as a Qualified Individual and specifying their full authority to: • Activate and engage in contracting with oil spill removal organization(s); • Act as a liaison with the pre-designated Federal On-Scene coordinator (OSC); and • Obligate funds required to carry out all necessary or directed response activities.
R	
RA	Regional Administrator
RCP	Regional Contingency Plan
Reception Area	This refers to a location separate from staging areas, where resources report in for processing and out-processing. Reception Areas provide accountability, security, situational awareness briefings, safety awareness, distribution of IAPs, supplies and equipment, feeding, and bed down.
Recorders	Individuals within ICS organizational units who are responsible for recording information. Recorders may be found in Planning, Logistics and Finance/Administration.

Term	Definition
Recoverable Oil	Oil in a thick enough layer on the water, or land to be recovered by conventional techniques and equipment. Only black or dark brown oil, mousse and heavy sheens (which are dull brown in color) are generally considered to be thick enough to be effectively recovered by skimmers.
Recovery	The development, coordination, and execution of service-and site-restoration plans; the reconstitution of government operations and services; individual, private-sector, nongovernmental, and public-assistance programs to provide housing and to promote restoration; long-term care and treatment of affected persons; additional measures for social, political, environmental, and economic restoration; evaluation of the incident to identify lessons learned; post-incident reporting; and development of initiatives to mitigate the effects of future incidents.
Recreation Area	Publicly accessible area where social/sporting events take place.
Resource Management	Efficient incident management requires a system for identifying available resources at all jurisdictional levels to enable timely and unimpeded access to resources needed to prepare for, respond to, or recover from an incident. Resource management under the NIMS includes mutual-aid agreements; the use of special Federal, State, local, and tribal teams; and resource mobilization protocols.
Resource Unit	Functional unit within the Planning Section responsible for recording the status of resources committed to the incident. The Unit also evaluates resources currently committed to the incident, the impact that additional responding resources will have on the incident, and anticipated resources needs.
Resources	All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.
Response Contractors	Persons/companies contracted to undertake a response action to contain and/or clean up a spill.

Term	Definition
Response Plan	A practical plan used by industry for responding to a spill. Its features include (1) identifying the notification sequence, responsibilities, response techniques, etc. in an easy to use format; (2) using decision trees, flowcharts, and checklists to insure the proper response for spills with varying characteristics; and (3) segregating information needed during the response from that required by regulatory agencies to prevent confusion during a spill incident.
Response Resources	The personnel, equipment, supplies, and other capabilities necessary to perform the response activities identified in a response plan.
Responsible Party (RP)	Any person, owner/operator, or facility that has control over an oil or hazardous substance immediately before entry of the oil or hazardous substance into the atmosphere or in or upon the water, surface, or subsurface land of the state.
Responsible Party Incident Commander (RPIC)	Responsible Party's designated incident commander.
Restoration	The actions involved in returning a site to its former condition.
Rivers and Canals	A body of water confined within the inland area that has a projected depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.
ROW	Right of Way
RQ	Reportable Quantity
RRT	Regional Response Team
S	
Safety Officer (SO)	A member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations, and for developing measures for ensuring personnel safety. The Safety Officer may have assistants.
SCBA	Self-Contained Breathing Apparatus
SDS	Safety Data Sheet
Section	The organization level having functional responsibility for primary segments of incident operation such as: Operations, Planning, Logistics, Finance/Administration. The Section level is organizationally between Branch and Incident Commander.

Term	Definition
Service Branch	A Branch within the Logistics Section responsible for service activities at the incident. Includes the Communications, Medical and Food Units.
Sheen	A very thin layer of oil (less than 0.0001 inches or 0.003 millimeters in thickness) floating on the water surface. Sheen is the most commonly observed form of oil during the later stages of a spill. Depending on thickness, sheens range in color from dull brown for the thickest sheens to rainbows, grays, silvers, and near-transparency in the case of the thinnest sheens.
SOP	Standard Operating Procedure
Ship	Any boat, ship, vessel, barge or other floating craft of any kind.
SI	Surface Impoundment
Single Resource	An individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.
Site Conditions	Details of the area surrounding the facility, including shoreline descriptions, typical weather conditions, socioeconomic breakdowns, etc.
Site Safety and Health Plan (SSHP)	Site-specific document required by state and Federal OSHA regulations, in the event of an incident and specified in the Area Contingency Plan. The SSHP, at minimum, addresses, includes, or contains the following elements: health and safety hazard analysis for each site task or operation, comprehensive operations work plan, personnel training requirements, PPE selection criteria, site-specific occupational medical monitoring requirements, air monitoring plan, site control measures, confined space entry procedures (if needed), pre-entry briefing (tailgate meetings, initial and as needed), pre-operations commencement health and safety briefing for all incident participants, and quality assurance of SSHP effectiveness.
Site Security and Control	Steps that must be taken to provide safeguards needed to protect personnel and property, as well as the general public, to ensure an efficient clean-up operation.
SITREP	Situation Report Message
Situation Unit	Functional unit within the Planning Section responsible for collecting, organizing and analyzing incident status information, and for analyzing the situation as it progresses. Reports to the Planning Section Chief.

Term	Definition
Source Control	Actions necessary to control the spill source and prevent the continued release of oil or hazardous substance(s) into the environment.
Span of Control	On how many organizational elements may be directly managed by one person. Span of Control may vary from three to seven, and a ratio of one to five reporting elements is recommended.
Spill	An unauthorized spill of oil or hazardous substance into the waters of the state.
Spill Management Team (SMT)	The personnel required to staff the organization structure identified in a response plan to manage response plan implementation.
Spill Response	All actions taken in responding to spills of oil and hazardous materials including: receiving and making notifications; information gathering and technical advisory phone calls; preparation for and travel to and from spill sites; direction of clean-up activities; damage assessments; report writing, enforcement investigations and actions; cost recovery; and program development.
Spill Response Personnel	Federal, State, and Local agency, and industry personnel responsible for participating in or otherwise involved in spill response. All spill response personnel will be pre-approved on a list maintained in each region.
SSHP	Site Safety and Health Plan
Staging Area	The location where incident personnel and equipment are staged awaiting tactical assignment.
State On-Scene Coordinator (SOSC)	The pre-designated State On-Scene Coordinator.
STEL	Short-term Exposure Level
Strategic	Strategic elements of incident management are characterized by continuous long-term, high-level planning by organizations headed by elected or other senior officials. These elements involve the adoption of long-range goals and objectives, the setting of priorities; the establishment of budgets and other fiscal decisions, policy development, and the application of measures of performance or effectiveness.
Strategy	The general plan or direction selected to accomplish incident objectives.
Strike Team	A set number of resources of the same kind and type that have an established minimum number of personnel.

Term	Definition
Supervisor	The ICS title for individuals responsible for directing the activities of a Division or Group.
Supply Unit	Functional unit within the Support Branch of the Logistics Section responsible for ordering equipment and supplies required for incident operations.
Support Branch	A Branch within the Logistics Section responsible for providing personnel, equipment and supplies to support incident operations. Includes the Supply, Facilities, Ground Support and Vessel Support Units.
T	
Tabletop Exercise (TTX)	A tabletop exercise is an activity in which key members of the plan holder's staff with emergency management responsibilities are gathered together informally, usually in conference room, to discuss actions to be taken during an oil or hazardous substance spill, based upon the response plan and their standard operating procedures. The primary characteristic is a verbal "walk through" of a response. The tabletop exercise is designed to elicit constructive discussion by the participants, usually without time constraints, as they examine and resolve problems based on the response plan. A tabletop exercise has participants practice problem solving and resolve questions of coordination and assignment of responsibilities in a non-threatening format, under minimum stress.
Tactics	Deploying and directing resources during an incident to accomplish the desired objective.
Task Force	A group of resources with common communications and a leader assembled for a specific mission.
Technical Specialist	Personnel with special skills who can be used anywhere within the ICS organization.
Threat	An indication of possible violence, harm, or danger.
Time Unit	Functional unit within the Finance/Administration Section responsible for recording time for incident personnel and hired equipment.
Tools	Those instruments and capabilities that allow for the professional performance of tasks, such as information systems, agreements, doctrine, capabilities, and legislative authorities.
Toxic Substances	Any substances that have the capacity to produce personal injury or illness to man through ingestion, inhalation or absorption through any body surface.

Term	Definition
Transfer	Any movement of oil to, from, or within a vessel by means of pumping, gravitation, or displacement.
TRG/TRP	Tactical Response Guide/ Tactical Response Plan
U	
UEL	Upper Explosive Limit
Unified Command	The method by which local, state, and federal agencies, on-scene coordinator(s), and the responsible party will work within the Incident Command System to collectively: • Determine their roles and responsibilities for the incident. • Determine their overall objectives for management of an incident. • Select a strategy to achieve agreed-upon objectives. • Deploy resources to achieve agreed-upon objectives.
Unit	The organizational element having functional responsibility for a specific incident planning, logistics, or finance/administration activity.
Unity of Command	The concept by which each person within an organization reports to one and only one designated person. The purpose of unity of command is to ensure unity of effort under one responsible commander for every objective.
UST	Underground Storage Tank
V	
Vessel	Every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, other than a public vessel.
VHF	Very High Frequency
W	
Waste	Oil or contaminated soil, debris, and other substances removed from coastal waters, adjacent water, shorelines, estuaries, tidal flats, beaches, or marshes in response to an unauthorized spill. Waste is any solid, liquid, or other material intended to be discarded or disposed of and generated as a result of an unauthorized spill of oil. Waste does not include substances intended to be recycled if they are in fact recycled within 90 days of generation or are brought to a recycling facility within that time.
Watercourse or Waters	Any lakebed (playa), gully, draw, streambed, wash, arroyo, or natural or man-made channel through which water flows or has flowed.

Term	Definition
Waters of the U.S.	Groundwater and surface water including all perennial, intermittent, and ephemeral defined drainages with flowing water present, NPDES discharge water after the Point of Compliance, lakes, reservoirs and wetlands which are not manmade retention ponds used for the treatment of municipal, agricultural or industrial wasters; and all other bodies of surface water, either public or private which are wholly or partially within the boundaries of the state.
Worst Case Discharge	Means in the case of an onshore facility, the largest foreseeable discharge in adverse weather conditions.

District I
1625 N. French Dr., Hobbs, NM 88240
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
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District IV
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Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 47514
	Action Type: [NGGS] NGGS Operations Plan (NGGS-OP)

QUESTIONS

Verification	
Does the operator own the selected facility	Yes
Is the selected facility a natural gas gathering system	Yes

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ACKNOWLEDGMENTS

☑	I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Gathering System Operations Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.