B. All equipment and structures not covered by A. above will be camouflaged using the following procedures:

1. The initial criteria to be used to determine what should be camouflaged will be the equipment or structures that can be seen one-quarter mile or beyond from the proposed location. The equipment or structures that cannot be seen from this distance should not require camouflaging.

2. As a general rule, all high-level equipment (six feet or higher) such as tanks, separators and heater treater (except the firebox and stack) will require camouflaging.

3. As a general rule, equipment such as pumping units (the tips of movable parts--such as the horsehead, weights and beam--will be painted according to OSHA requirements), flow lines or other lines on the ground, other small-size lines (4-inch diameter and smaller), low-level well head equipment and headers (up to five feet in height), and small and galvanized wire and pipe that are not normally painted will not require painting. If this type of equipment is normally painted, or painted from previous use, the contrast of color will be considered in visual assessment. It is desirable that as much equipment as possible be painted a uniform non-contrasting color if it's going to be painted anyway.

The use of semi-gloss paint in lieu of flat paint will be acceptable.

Exceptions to these requirements may be allowed (exceptions must be approved by BLM and USGS on a case-by-case basis), for the following reasons:

1. Safety as described by the Occupational Safety and Health Administration (OSHA) in part 1910.155, Title 29 of the Code of the Federal Regulations "Safety Color Code for Marking Physical Hazards".

2. Function identification which might aid in the identification of materials conveyed as described in the American National Standards Institute (ANSI) document A13.1 (Scheme for the Identification of Piping Systems"; or

3. To aid in the functional use of certain types of equipment (i.e., painting equipment a dark color to absorb heat to aid flow of high viscuous liquids or a light color to prevent loss of hydrocarbons by evaporation).

James A. Knauf
District Engineer

B. Ram-type blowout preventers and related control equipment shall be pressure tested with water to the rated working pressure of the stack assembly, with the exception of the annular-type preventer, which may be tested: (a) when installed, (b) before drilling possibly abnormally pressured zones, and (c) following repairs that require disconnecting a pressure seal in the assembly.

C. While drill pipe is in use, ram-type blowout preventers shall be actuated to test proper functioning once each trip, but in no event less than once each day. The annular-type blowout preventer shall be actuated on the drill pipe at least once each week.

D. Blowout preventers are to have proper rams for the operations being performed. Casing rams are required when running casing.

E. Blowout preventers are to have handwheels installed.

F. A choke line and a kill line are to be properly installed. The kill line is <u>not</u> to be used as a fill-up line.

G. The accumulator system shall have a pressure capacity to provide for repeated operation of hydraulic preventers.

H. Drill string safety valve(s) to fit all pipe in the drill string are to be maintained on the rig floor while drilling operations are in progress.

I. Blowout prevention drills are to be conducted as necessary to assure that equipment is operational and that each crew is properly trained to carry out emergency duties. All BOP tests and drills are to be recorded in the driller's log.

J. The maximum pressure to be allowed on blowout preventers during well control operations is to be posted for each casing string.

K. The characteristics, use, and testing of drilling mud and the conduct of related drilling procedures shall be such as are necessary for well control. Quantities of mud materials sufficient to insure well control shall be readily accessible for use at all times.

L. When coming out of the hole with drill pipe, the annulus shall be filled with mud before the mud level drops below 100 feet. The volume of mud required to fill the hole shall be watched, and any time there is an indication of swabbing, or influx of formation fluids, proper blowout prevention precautions must be taken. The mud shall not be circulated and conditioned except on or near bottom, unless well conditions prevent running pipe to bottom.

M. From the time drilling operations are initiated and until the well is completed or abandoned, a member of the drilling crew or the toolpusher shall maintain rig floor surveillance at all times, unless the well is secured with blowout preventers or cement plugs.

4. REPORTS (Also refer to ABANDONMENT):

A. The following reports shall be filed with the District Engineer within 15 days after the work is completed.

(1) Five copies of Sundry Report, Form 9-331, giving complete information concerning:

(a) Setting of each string of casing. Show size, grade, and weight of casing set, size hole, depth set, amount and type of cement used, whether cement circulated, top of cement behind casing if determined, depth of cementing tools if used, casing test method and results, and date work was done. Show spud date on first report submitted.

(b) Intervals tested, perforated, acidized, or fractured and results obtained.

(2) Five copies of Well Completion Report, Form 9-330. Show formation tops, drill stem test information, completion data, and four-point and other production tests. Show all oil and gas zones and important water sands under item 37. Data on water sands should include rate of water inflow and elevation to which water rose in hole.

(3) Two copies of all electrical and radioactivity logs run.

5. DRILLER'S LOG: The following shall be entered in the daily driller's log:

A. Blowout preventer pressure tests including test pressures and results.

B. Blowout preventer tests for proper function.

C. Blowout prevention drills conducted.

D. Casing run, including size, grade, weight and depth set.

E. How pipe was cemented, including amount of cement, type, whether cement circulated, location of cementing tools, etc.

F. Waiting on cement time for each casing string.

G. Casing pressure tests after cementing including test pressure and results.

6. BLOWOUT PREVENTION:

A. Blowout preventers and related well-control equipment shall be installed, tested, and used in such manner necessary to prevent blowouts. BOP equipment is to be installed and in working order before drilling below the surface casing and shall be maintained ready for use until drilling operations are completed.

2. CONSTRUCTION ACTIVITIES (Also refer to 3. PITS):

A. No caliche, gravel, or other related minerals from new or existing pits on Federal land will be used in construction of roads, well sites, etc., without prior approval from BLM.

B. Materials removed during construction must be disposed of in such manner that it does not detract from the aesthetics of the area and does not accelerate erosion. Vegetation removed during clearing operations should be placed in drainages, washed, gullies, etc., and "walked down" by crawler type tractor. If there are no drainages in the immediate area, the vegetation should be "walked down" in place. All trash resulting from construction activities will be disposed of. Any large rocks resulting from construction activities will not be piled or left in rows but will be left so they do not detract from the natural appearance of the area. Any available topsoil encountered during construction should be stockpiled for use in restoring the pit area after the pits are covered.

C. Unless otherwise approved, all access roads should be limited to 12 feet in width. If the well is a producer, roads should be adequately drained and maintained to control erosion. Drainage facilities may include ditches, water bars, culverts and/or any other measure deemed necessary by the surface management agency.

D. Each existing fence to be crossed by the permittee will be braced and tied off before cutting so as to prevent slacking of the wire. The opening will be protected as necessary during construction to prevent the escape of livestock and upon completion of construction, the fence will be repaired back to the original standard of the existing fence. A cattleguard will be installed in any fence where a road is to be regularly traveled. A twelve feet gate will be installed adjacent to the cattleguard when directed by the BLM authorized officer.

Note: Sec. 2-B and 2-C above apply primarily to Federal lands. If the land is privately owned, these requirements may be varied to comply with the operator-landowner agreement.

3. PITS:

A. Mud pits will be constructed so as not to leak, break or allow discharge of liquids. Pits are not to be located in natural drainage. Any plastic material used to line pits must be removed to below ground level before pits are covered.

B. All unguarded pits containing liquids will be fenced. All pits containing toxic liquids will be covered with a fine mesh netting (i.e., Hardware cloth) with openings being ½ inch or less for protection of wildlife.

C. Liquids in pits will be allowed to evaporate, or be properly disposed of otherwise, before pits are broken. Under no circumstances will pits be allowed to be cut to be drained.

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