includes the use of many hazardous chemicals and materials. These include drilling muds, well casing cement, fractionating gels, and well treatments. The storage, mixing, and handling of these materials are potential pollutant sources.

Oil field service industries provide a variety of services for exploration and production activities. These service industries often store and mix chemicals for drilling muds, well casing cement, fractionating gels, and well treatments at the facility. The storage and mixing areas are potential pollutant sources. Often, mixing areas and equipment are exposed to storm water. Many oil field service facilities manufacture some oil field equipment components. The exposed raw materials, intermediate products, finished products, and waste products are potential sources of pollutants in storm water.

In its description of potential pollutant sources, a facility must include information about the RQ release which triggered the permit application requirements. Such information must include: the nature of the release (e.g., spill of oil from a drum storage area); the amount of oil or hazardous substance released; amount of substance recovered; date of the release; cause of the release (e.g., poor handling techniques as well as lack of containment in area); area affected by release, including land and waters; procedure to cleanup release; and remaining potential contamination of storm water from release.

(2) Measures and Controls.

(a) RQ Releases—The permittee must describe the measures taken to clean up RQ releases or related spills of materials, as well as measures proposed to avoid future releases of RQs. Such measures may include, among others: improved handling or storage techniques; containment around handling areas of liquid materials; and use of improved spill cleanup materials and techniques.

(b) Vehicle and Equipment Storage Areas—Vehicles and equipment associated with oil field activity are often coated with oil, oil field drilling muds, and the chemicals associated with drilling. These vehicles and equipment are a significant source of pollutants. The permittee must address these areas, and institute practices to minimize pollutant runoff from this area.

(c) Vehicle and Equipment Cleaning and Maintenance Areas—The plan must describe measures that prevent or minimize contamination of the storm water runoff from all areas used for vehicle and equipment cleaning. The

facility may consider performing all cleaning operations indoors, covering the cleaning operation, and/or collecting the storm water runoff from the cleaning area and providing treatment or recycling. These cleaning and maintenance activities can result in the exposure of cleaning solvents, detergents, oil and grease and other chemicals to storm water runoff. The use of drip pans, maintaining an organized inventory of materials used in the shop, draining all parts of fluids prior to disposal, prohibiting the practice of hosing down the shop floor where the practice would result in the exposure of pollutants to storm water, using dry cleanup methods, and/or collecting the storm water runoff from the maintenance area and providing treatment or recycling may reduce the pollutants discharged in storm water runoff.

(d) Materials Storage Areas—Storage units of all chemicals and materials (e.g., fuels, oils, used filters, spent solvents, paint wastes, radiator fluids, transmission fluids, hydraulic fluids, detergents drilling mud components, acids, organic additives) may result in the contamination of storm water discharges. Labeling of all storage containers helps facility personnel to respond effectively to spills or leaks. Additionally, covered storage of the materials and/or installation of berming and diking at the area can be effective BMPs.

(e) Chemical Mixing Areas—Chemical mixing (e.g., the mixing of drilling muds, fractionating gels, mixing well casing cement, and well treatment acids and solvents) at both well sites and at facilities with service drilling activities have significant potential to contaminate storm water runoff. The facility should consider covering the mixing area, using spill and overflow protection, minimizing runon of storm water to the mixing area, using dry cleanup methods, and/or collecting the storm water runoff and providing treatment or recycling. The facility should consider installation of berming and diking of the area. The waste water pollutants associated with produced waters, drilling muds, drill cuttings and produced sand from any source associated with onshore oil and gas production, field exploration, drilling, well completion, or well treatment are prohibited from being discharged (40 CFR 435.32)

(f) Preventive Maintenance—The preventive maintenance program must include the inspection of all onsite and offsite mixing tanks and equipment, and inspection of all vehicles which carry supplies and chemicals to oil field

activities. These mixing tanks and vehicles carry large volumes of fractionating chemicals and gels, cements, drilling muds, and well treatment chemicals and acids that potentially may contaminate waters of the United States if leaks or spills occur.

(g) Inspection Frequency—All equipment and areas addressed in the pollution prevention plan shall be inspected semiannually. Equipment and vehicles which store, mix or transport hazardous materials will be inspected quarterly. Inspections shall also include the inspection of all onsite mixing tanks and equipment, and inspection of all vehicles which carry supplies and chemicals to oil field activities. These mixing tanks and vehicles carry large volumes of fractionating chemicals and gels, cements, drilling muds, and well treatment chemicals and acids that potentially may contaminate waters of the United States if leaks or spills occur.

6. Numeric Effluent Limitation

There are no additional numerical effluent limitations beyond those listed in Part V.B. of today's permit.

7. Monitoring and Reporting Requirements

a. Monitoring Requirements. The regulatory modifications at 40 CFR 122.44 (i)(2) established on April 2, 1992, grant permit writers the flexibility to reduce monitoring requirements in storm water discharge permits. EPA has determined that the potential for storm water discharges to contain pollutants above benchmark levels, because of the industrial activities and materials exposed to precipitation, does not support sampling at oil and gas facilities. Based on a consideration of the BMPs typically used at these facilities, and generally low pollutant values from the application data, EPA believes that the pollution prevention plan with visual examinations of storm water discharges will help to ensure storm water contamination is minimized. Because permittees are not required to conduct sampling, they will be able to focus their resources on developing and implementing the pollution prevention plan.

Quarterly visual examinations of a storm water discharge from each outfall are required at oil and gas facilities. The examination must be of a grab sample collected from each storm water outfall. The examination of storm water grab samples shall include any observations of color, odor, turbidity, floating solids, foam, oil sheen, or other obvious indicators of storm water pollution. The examination must be conducted in a well lit area. No analytical tests are