

In 2003, the EPA proposed fines for 17 facilities in the eastern part of ND totaling more than \$400,000 for oil spill prevention, control and countermeasure (SPCC) regulation violations. The proposed penalties range from \$8,192 to more than \$47,860 and resulted from unannounced on-site inspections conducted in September 2002.

FEDERAL OIL SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) REGULATIONS

These SPCC regulations were originally implemented in 1973 with the first SPCC plans for oil handling facilities required in January 1974. The US EPA revised the oil SPCC regulations outlined in 40 CFR 112 rule on July 17, 2002 with subsequent minor modifications on December 26, 2006, December 5, 2008 and November 13, 2009. These changes were the result of over 10 years of rulemaking efforts. Containers with at least 55 gallons, including drums and intermediate bulk containers (e.g. "tote tanks") are now specifically included in the scope of the rules. The terminology change from items "should" be to "must" be throughout the rule leaves little room for interpretation. Requirements now include increased secondary containment capacity to hold both the largest tank volume plus precipitation. Incorporation of industry standards for design, operational procedures and equipment inspection is also specified.

Transformers and hydraulic lifts meet the definition of "oil-filled equipment". Secondary containment and equipment inspection provisions do NOT apply to areas which hold items classified as oil-filled equipment. However facility specific criteria and the requirement for an SPCC plan do apply if the aggregate total of shell capacity including piping threshold i.e. above 1320 gallons is met.

Due to several new exemptions and the elimination of the single large capacity (i.e. 660 gallon or more) trigger point, approximately 55,000 facilities will no longer be subject to these requirements. However EPA estimates over 400,000 facilities remain under its jurisdiction. In June 2009, the EPA announced that **farm facilities** would be held to the same regulatory deadline as non-farm facilities.

EPA estimated the cost for just preparation of a SPCC plan to range between \$2160 to \$2540 per facility (2002 dollars) in addition to site modifications and re-occurring compliance costs.

The current deadline for finalizing these changes is on or before November 10, 2010 although the EPA announced in November 2009 they would extend the deadline one last time. Note however that any facility in existence prior to August 16, 2002 should already have had a SPCC plan in place and should have already revised their plan at least once to meet new regulatory requirements.

SPCC REGULATIONS – 40 CFR 112

The Oil Pollution Prevention Regulations applies to non-transportation-related facilities that:

- Have an aggregate storage capacity in above-ground storage of more than 1,320 gallons, or a total underground storage capacity of 42,000 gallons or more
- Could reasonably be expected to discharge oil in harmful quantities into navigable waters of the United States

Owners or operators of sites with bulk storage containers and/or oil filled equipment meeting these thresholds are required to develop and implement provisions of an oil spill prevention, control and countermeasure (SPCC) plan. As defined by the regulation, a tank is an example of "bulk storage

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container.” A facility or piece of equipment is “permanently closed” only if it is empty, disconnected and labeled as out of service including the effective date. .

If applicable to one or more of your facilities, a SPCC plan must include:

- Log of 5-year Review Cycle
- Facility Diagram
- Site Security Provisions
- Bulk Storage Containers Description and Control Measures
- Storage Container Design Standards
- Inspections, Tests and Records
- Drainage and Discharge Pathways Description
- Spill Predictions and Facility Specific Countermeasures
- Discharge Response and Reporting Procedures
- Facility Transfer Operations, Pumping & Process Procedures
- Facility Loading & Unloading Areas Design and Operations
- Certification of Substantial Harm Criteria Checklist
- Employee Training Description

Training on the operation and plan provisions, known as “oil discharge briefings” must now be given on at least an annual basis to all “oil handling” employees. Minimum content of the training program is also specified including discharge response, inspection and operating procedures.

The SPCC plan must be

- On-site if location attended 4 (rather than the prior requirement of 8) or more hours a day
- Otherwise located at nearest office location
- Available for inspection during business hours
- Identify the person responsible for oil spill prevention
- Signed/authorized by management agent
- Revised within 6 months to apply significant new technology
- Specific enough to describe how each regulatory section is satisfied
- Follow specified legislated sequence to alternative provide a cross reference sheet
- Certified as adequate by a Registered Professional Engineer - unless the facility is at or below 10,000 gallon capacity and specified provisions are met.

As a result of lawsuits filed by trade associations, limited relief was granted from 4 provisions:

- Small Container Integrity Testing
- Loading / Unloading Rack requirements verses Loading / Unloading Areas
- Definition of Impracticality

Small Facilities (i.e. at or below 10,000 gallons aggregate capacity) and farms were also granted additional flexibility in complying with regulations such as compliance with security requirements. Small facilities without a history of reportable spills can also prepare their SPCC plans without the involvement of a professional engineer, if they review and comply with the stated regulations. The EPA published a sample SPCC plan which an owner/operator can modify to meet requirements.

The EPA has also restored the 1974 definition of “water of the US” which will at least temporarily remove an estimated 80% of facilities from being subject to this regulatory. However the EPA is working with Congress to re-establish the definition they offered in 2002.

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The US EPA has published additional guidance which can be found at <http://www.epa.gov/oilspill/>

Note that these EPA requirements are specific to “non-transportation” related facilities. The US DOT has its own oil spill response regulations which apply to transportation facilities with on-board capacities at or above 3,500 gallons. These regulations are found in 49 CFR 130.

Changes - Reduced Requirements

- SPCC review cycle extended to five (5) rather than three (3) years
- Professional engineer certification only after technical changes, not every 5 years.
- 1 - 660+ gallon tank trigger for SPCC Plan removed
- Containers less than 55-gallon in size are no longer regulated
- Permanently closed tanks do not count toward threshold
- Two exemptions from regulations were added
 - Regulated underground 280/281 facilities less than 42,000 gallons in size
 - Exclusively wastewater facilities
- Only “oil handling” employees require training
- Existing records may be used to satisfy testing and inspections requirements
- “Administrative” changes not subject to re-certification by professional engineer
- Deviations from specified requirements with equivalent environmental protection
- Plan contents can be sequenced as desired if cross-reference info is provided
- Oil filled equipment (transformers, hydraulically powered equipment, oil-water separators, vehicles, etc.) now specifically included in regulations

Changes – Increased Requirements

- “Users” of oil (i.e. oil filled equipment) are now specifically regulated
- Facility map must be included showing surface flow patterns & underground tanks
- Security requirements expanded – locking valves, piping protection and lighting
- Secondary containment capacity must include precipitation events – 3 to 4 inches
- Periodic tank and piping inspections are required and to be documented
- Industry standards (API, ASME, STI, etc.) must be considered
- Removal of clean precipitation from containment areas must be recorded
- Containment outlet valves must now be operated in the normally closed position
- Cathodic protection and wrapping for new underground piping (non-production)
- Facilities attended 4 (rather than 8) hours must keep a copy of the plan at the site
- Increased reporting and requirements if 2 – 42+ gallons spills in 12 month period
- Engineer must certify plan is adequate for facility and consider industry standards
- Engineer or agent must physically visit site prior to certifying plan
- Conformance to stricter State or local requirements must be discussed
- EPA may require compliance with SPCC regulations even if listed criteria not met
- EPA may require plan changes after an on-site inspection

Owners and operators of oil handling facilities need to understand their responsibilities under the revised regulations. A copy can be downloaded at <http://www.epa.gov/oilspill/pdfs/40cfr112.pdf>

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Security Requirements for “Non-Oil Production” Facilities include [40 CFR 112.7(g)]

- Fully fence each facility handling, processing or storing oil, and lock or otherwise guard entrance gates when the facility is not in production or unattended
- Ensure that the master flow and drain valves permitting direct outward flow of the containers’ contents to the surface have adequate security measured so that they remain in the closed position when in non-operating or non-standby status
- Lock the starter control on each oil pump in the off position and locate it at a site accessible only to authorized personnel when the pump is in a non-operating or non-standby status.
- Securely cap or blank-flange the loading/unloading connections or facility piping when not in service or when in standby service for an extended time.
- Provide lighting suitable for facility to assist in (i) the discovery of discharges in darkness and (ii) prevention of vandalism.

Facilities with Loading Racks must [40 CFR 112.7(h)]:

- Where loading/ unloading area drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading and unloading areas. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility. (not subject to precipitation event)

A “quick drainage system” is a device which drains oil away from the loading/unloading area to some means of secondary containment or returns the oil to the facility.

- Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.
- Prior to filling and departure of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

Facilities with Aboveground Piping Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations. [40 CFR 112.8(d)(5)]

While these rules may seem overwhelming and potentially costly, consider the 2002 allows modifications or exemptions of the rules if suitable alternate protection can be engineered into the facility. These “DWEETPs” i.e. deviations with environmentally equivalent protection are subject to review and approval of a professional engineering certifying the SPCC Plan.

Keitu currently has 6 full-time engineers and consultants on staff in our Mandan, ND office to assist you. We don’t have conflicts of interest; don’t sell tanks, fence, inspection or construction services. Your facility’s compliance is our only concern.

Additional information may also be found on our website at www.keitu.com. Please contact us via email at info@keitu.com or call at 701.667.1800 if we can be of further assistance.