

STATE OF COLORADO

DIVISION OF MINERALS AND GEOLOGY
Department of Natural Resources

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MINERALS PROGRAM POLICY MEMO

To: Minerals Staff
From: HBH
Date: April 8 2005
RE: Oil and Fuel Spill Containment Structures



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Governor

Russell George
Executive Director

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Purpose:

This Policy provides guidance to Operators and Staff concerning the protection of ground water from the loss of containment of petroleum products at mine sites. This Policy stresses the need for the Operator's reclamation bond to be sufficient for the removal of storage facilities, their contents, and spill containment structures. It is not enforceable, unless its provisions, in whole or in part, are incorporated into a Mined Land Reclamation Board permit through the permitting or permit revision process.

The Minerals Program relies on other agencies' standards and design requirements for spill containment structures to prevent spills and/or releases of *oil and fuel* products (*see* 40 CFR 112 *et al.*). Such agencies include the Environmental Protection Agency, relevant agencies of the Colorado Department of Public Health and the Environment, the State Oil Inspector, and other appropriate Federal, State or local government agencies. Even though the Minerals Program relies on other agencies' standards and design criteria, the Minerals Program has a separate statutory responsibility to protect ground water quality (*see* Senate Bill 89-181). In determining when one should report a spill to DMG, the Operator should rely on the agency whose reporting criteria have the lowest reportable spill threshold. DMG will determine if that amount, given site-specific circumstances, requires further actions to protect ground water quality.

Objective:

The intent of the containment structure(s) shall be to minimize the loss of *oils and fuels* outside of the approved containment to ground water systems in the event of tank, drum, or delivery system failure, or spillage from any source in excess of reporting amounts set by other Federal, State, or local governments with authority for such matters. Even though a Spill Prevention Control and Countermeasure (SPCC) plan may be required at a mine or prospecting site for the protection of surface water quality by the Department of Public Health and the Environment, Water Quality Control Division, the Office should only consider such structures where there is a need to protect ground water quality. Containment capacity shall be sufficient to contain *oils and fuels* with sufficient freeboard to contain a precipitation event, as specified by applicable Federal, State or local government regulations.

EPA has not historically required the submittal of an SPCC plan to it (*see* 40 CFR Part 112.3(e) – “... shall maintain a complete copy of the Plan at such facility if the facility is normally attended at least 8 hours per day, or at the nearest field office if the facility is not so attended, and shall make such Plan available to the Regional Administrator for on-site review during normal working hours.”). EPA does require an SPCC plan to be certified by a professional engineer.

A recommended method for applicants and operators to demonstrate compliance with C.R.S. 34-32-116(7)(g), and 34-32.5-116(4)(h) that store *oils and fuels* in regulated quantities (e.g., more than **1320 gallons of oil or fuel in containers with a capacity of at least 55 gallons**) within the permit boundary area at a mine or area encompassed by a Notice of Intent (NOI), is to submit documentation, in a form acceptable to the Office, that they have a SPCC plan and that plan has or will be implemented prior to storage of fuel or oil products. It is not necessary to provide the Division a copy of the SPCC plan, but it must be available for review at the facility or the nearest field office during an inspection conducted during normal business hours. The operator must submit a letter to the Division, on company letterhead, affirmatively stating that the plan has been implemented.

Applications and Permit Revisions:

If the submittal and site implementation of an SPCC plan is the applicant/operators choice to demonstrate compliance with 116(7)(g) or 116(4)(h), as related to protection of ground water quality, changes to the containment structure(s) that affect its function will be addressed in an update to the SPCC plan as necessary within the timeframe specified (e.g., six months per 40 CFR Part 112.5(a)) by the applicable federal or state regulations. An acceptable alternative to the submittal of an SPCC plan would be to provide containment dimensions adequate to enable bond release calculations and containment details sufficient to demonstrate protection of ground water. The Division is making the connection that if the SPCC plan is protective of surface water quality; it likely protects ground water quality.

In some instances the addition of an SPCC facility may require a permit revision, in other instances simply a modification to the existing reclamation bond will be all that is necessary. Examples of instances where a permit revision may be required include:

- The addition of an SPCC facility to an existing permit where an SPCC facility does not exist.
- Moving an SPCC facility from an affected area within a permitted site to a site not presently permitted as affected area.
- Moving an SPCC facility from an area of no ground water quality impacts to a site where ground water quality may be affected due to product spill.

An example of an instance where a permit revision may not be required:

- If an SPCC plan is required for the protection of surface water quality, and the operator demonstrates that no ground water impacts are anticipated at a mine site due to loss of containment, and that there will be no changes to the approved reclamation plan, then changes to an SPCC facility may only require a surety increase.

The Division may require submittal of SPCC plan details sufficient to calculate a reclamation bond and review of the associated reclamation plan.

Mine Site Inspections:

As an inspection item, where ground water impacts from a loss of containment may be expected, the mine site operator may need to demonstrate that any contained waters in the spill containment structure do not compromise the ability to store the design storm event. (A Professional Engineer certification of an SPCC plan demonstrates containment capacity requirements.) Removal of accumulated fluids from containment structures must be done in accordance with applicable laws and regulations. The presence or absence of a containment structure or, if applicable, an SPCC plan at a mine site should be an inspection item and so noted in the inspection report. Double walled tanks/convault tanks do not need secondary containment, as it is inherent in the design of the structure. Temporary or portable tanks must abide by appropriate containment requirements and have adequate containment. It is recommended that spill plan site maps be updated as part of the annual report to show the current location of the tank(s).

The presence of a slurry wall or other constructed barrier intended to result in a lined reservoir at a construction materials operation is an acceptable alternative to an approved SPCC plan or facility. The Operator must provide the Office documentation that the Office of the State Engineer has approved the constructed barrier in order for the Division to accept the barrier as an alternative.

The WQCD should be copied on the inspection report if an SPCC plan or Materials Containment Plan is *not* available for inspection and it is determined that such plan(s) *may be* required. (Please see regulated quantities, above.)

It is recommended that site placement of the containment structure(s) prevent and/or protect against the loss of the containment structure(s) due to debris or landslides, avalanches, or other reasonably anticipated events that could compromise the ability of the facility to contain a controlled product spill. Guidance contained herein pertaining to site placement shall only apply to structures constructed after the date this policy is adopted. For existing facilities where site placement has the potential to compromise containment, the operator may propose structural improvements or operational procedures. The Division will determine on a case-by-case basis if a permit revision is required for the proposed structural improvement(s) in order to prevent and/or protect against the loss of the containment structure(s) due to debris or landslides, avalanches, or other reasonably anticipated events that could compromise the ability of the facility to contain a controlled product spill.