

## How do We Know That the Land Has Been Reclaimed – Regulatory Approach for a Surface Coal Mine (WY, USA)<sup>1</sup>

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**Abstract:** Before a company can begin mining in the U.S., it must secure a mining permit and comply with regulations and performance standards of the USA Federal Surface Mining Control and Reclamation Act (SMCRA) of 1977, state programs and other federal environmental acts. The Wyoming Department of Environmental Quality (WDEQ)/Land Quality Division (LQD) administers Wyoming's coal regulatory program and approves a surface coal mine permit application. Process of approving a surface coal mine permit application includes obtaining a coal lease from the federal Bureau of Land Management, completeness and technical reviews and approval by the LQD and public involvement. Before a mine permit is issued, a permittee must also submit a reclamation bond to secure the performance of reclamation obligations. After approval of the permit, any major revisions, amendments must be approved by the WDEQ/LQD and public hearings are required. According to WDEQ/LQD Coal Rules and Regulations, the goal of surface coal mine reclamation is to restore the land to a condition equal to or greater than the highest previous use. The coal mine permit application consists of four major portions: adjudication section, supporting data (baseline information), mine plan, and reclamation plan. For example, in the North Antelope Rochelle Mine permit more than 60% of the information concerns premining baseline data. The permit application, once approved, constitutes the enforcement contractual document (permit) with the WDEQ/LQD that is used during monthly compliance inspections of mining operations. Any discrepancy from the permit commitment and WDEQ/LQD Coal Rules and Regulations found during inspections or through a regulatory review of annual reports (submitted by the operator) could result in a violation with associated penalties. For the state of Wyoming, a system of reclamation criteria and performance standards has been established to indicate completion of successful reclamation phases. The reclamation status and the completion of various reclamation phases are verified through the bond release process. Representatives from the state, federal agencies, and land owners are joined together for the field inspections of the bond release phases. In Wyoming, four bond release phases for surface coal mines indicate the achievement of various reclamation processes.

**Additional Key Words:** Permitting, Inspections, Annual Report, Bond Release.

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