Mr. Chairman, members of the Commission, I appreciate this opportunity to testify before you.

As you are probably aware, the Kentucky Resources Council is a nonprofit environmental advocacy organization providing legal and technical assistance without charge to low-income individuals, to community organizations, and to local governments concerning air, waste, water, land use and resource extraction issues. Our perspective on resource extraction, transportation, utilization and waste disposal issues is one that has been forged by twenty-one years of representing those who live downhill, downwind and downstream of mining operations.

Those individuals and communities have borne the brunt of our failure as a Commonwealth to require that the producers and consumers of the coal resource pay the full price for the commodity and for the energy produced through the combustion of coal. The price has been paid in life, in premature death due to occupational illness and avoidable workplace accidents, it has been paid on the roads where coal trucks, loaded by the producers, haul overloaded and overweight, it has been paid in the loss of security for individuals whose homes have been damaged by blasting, whose properties have been devalued and made unlivable by loss of water supplies, and whose peace of mind has been taken by fear of flooding made more likely and more severe by denuding of the forested watersheds up stream, and the alteration of stream channels for sediment control and mine waste disposal.

My first direct involvement in advocacy on mining regulatory issues was in 1972, but I had read of the ecological damage and human misery inflicted by contour strip mining even before that time. In the intervening 28 years since the adoption of the 1977 Surface Mining Control and Reclamation Act, there have been changes in mining practices, and some of the more blatant abuses associated with surface coal mining have been halted – spoil over the outslope, water damage without liability, routine flyrock damage to lands from excessive blasting, disturbance of family cemeteries. Yet even as the bar has been raised somewhat in what is expected of the coal mining
industry in the management of the mining operations, we have failed and continue to fail to require anything approaching full accountability by the industry, in both ecological and human terms, and the short-term insular interests of the companies and their Boards in maximizing profit are yet allowed to trump the public’s interest.

The next fifty years will likely see dramatic changes in how coal is extracted, processed and utilized by the handful of coal companies that control the lion’s share of the resource. As the pressure inexorably builds to isolate and sequester carbon dioxide, and as gasification technologies are more widely deployed, mine-mouth gasification plants producing electricity as well as fuels and feedstock for other products will become more common. Surface mining of coal in the eastern Appalachian coalfields will decline as recoverable reserves continue to be depleted, and production will shift in the east to underground mining and possibly to in situ recovery, and to western coalfields.

The challenge for our Commonwealth today is to utilize existing tools in local, state and federal law, and where necessary to craft new tools, to demand full accountability from the industry for the footprint it leaves on land and water resources and on community safety and health. We have raised the bar to a level where mediocrity in engineering design and execution is accepted, and that footprint, in terms of area disturbed and land and water resources diminished, is much larger than it should or could be.

I appreciate the focus that has been given to the impacts of mountaintop removal. KRC views these issues in a slightly different screen – one of minimizing the footprint of all forms of mining – from the area mining operations in eastern and western Kentucky to the mountaintop removal operations, to strip contour, auger, and underground mines. We have failed – as a state, as a nation, to fulfill Congress’ vision – that mining would be a temporary use of land, that the mined land would be restored to beneficial uses, and that mining methods would be driven by proper planning and environmental protection rather than by profit.

When Congress enacted the federal Surface Mining Control and Reclamation Act of 1977, it was concerned with the damage done from the dumping of earth and rock from mining benches into headwater streams in Appalachia.
In order to minimize the damage to land and water resources, and to restore the mined land to productive capability, Congress demanded that the earth and rock (called "spoil") be replaced on the mine bench and that the original contour of the mountain be restored.

An exception to this requirement to restore the approximate original contour was created, allowing the removal of all earth and rock material from over a coal seam (called "mountaintop removal") without having to restore the original contour if specific plans and commitments were demonstrated for development of the land for industrial, commercial, residential, agricultural or public use. Most of the mining operations that are viewed as mountaintop removal are not technically categorized as such – they are mine plans that use a combination of point removal, area mining and deep contour cuts, and produce similar ecological consequences without the promise of beneficial post-mining uses of value to the community and environment.

* Where the law contemplates that the approximate contour of land be restored both in elevation and configuration, the agencies have ignored the elevation requirement, and allowed significant amounts of spoil material to be disposed of off-site in valley fills that should have been replaced on the minesite.

* Where the industry norm was once the hauling and placement of spoil material in compacted fills, spoil material is now routinely disposed of in end or wing-dumped durable rock fills that are located lower in the watershed and are larger in area displaced than needed.

* Where the federal regulation provides for 100-foot stream buffer zones to protect intermittent and perennial streams from adverse effects of mining on water quality and habitat, OSM has allowed the states to adopt disparate rules often ignoring those areas filled by spoil when applying buffer zones, and has proposed to further “enable” this destruction by eliminating the rule.

* Where the Corps of Engineers regulations formerly banned disposal of spoil and coal mine wastes in streams for the purpose of disposal, for years that agency ignored its own regulations. Now, having changed its regulations to remove the ban on disposal of wastes, and requiring prior authorization and approval for disposal of spoil and coal mine waste, and sediment pond construction in streams, the Corps of Engineers has yet to take enforcement action against hundreds of mining fills, sediment ponds,
and waste dams constructed in headwater streams without receiving Corps authorization.

In 1977, Congress made a clear choice – that the choice of technology would follow, rather than dictate, environmental protection. Rather than utilizing smaller equipment more appropriate to the terrain and to careful management of materials, the industry has systematically replaced the workforce with larger machines, and has violated the spirit and letter of water and mining laws in order to, literally, move heaven and earth in order to maximize profit.

The time has come for a rededication to the principles of the 1977 mining law "to protect society and the environment from the adverse effects of surface coal mining operations" and to give effect to the mission of the Clean Water Act to "end water pollution". The state and federal regulatory agencies have the necessary tools to demand much more accountability in all forms of surface mine planning and performance:

The state mining agency and the Corps of Engineers can and should, utilizing their permitting processes and properly applying the 404(b)(1) guidelines:

* Require more rigorous “alternatives” analysis and better mine sequencing and planning with the goal of reducing the size and number of fills in valleys by enforcing both the aspect and elevation components of AOC to demand maximum safe retention of the soil and rock on the mined area and the use of excess material to reclaim abandoned mines through disposal on pre-existing benches, and by requiring that the impacts of valley fills that are authorized be minimized through side-fill construction and that the fills be constructed and compacted fills rather than end and wing-dumped fills;

* Require more realistic permitting of spoil disposal areas in order to avoid multiplicity of fill areas, and sequence mine plan so that permitted fills must be completed before new fills are allowed to be constructed;

* Require full protection of water quality through the entire reach of streams by properly implementing the stream buffer zone rule, not just below fills and in-stream impoundments and ponds;
* Raise the bar on the requirement that the mining permit applicant demonstrate that the mine method, equipment selection and mine plan are all designed to minimize adverse environmental effects;

* Rigorously apply post-mining land use regulations to assure that changes in land use are appropriate and feasible;

* Require disposal of spoil in a manner that through location, design and configuration minimizes and compensates fully for adverse impacts on the environment, including requiring constructed, compacted fills;

* Eliminate the use of “in lieu fee” approaches for mitigation which facilitate stream conversion and loss without providing any assurance of comparable mitigation occurring in the same hydrologic unit providing equivalent functions and values;

* Restrict the appropriation by mining operations of the public’s waters for sediment treatment.

* Prohibit the construction of new high and moderate hazard coal waste impoundments and demand that filter-press technologies or backstowing waste underground in appropriate seams be utilized rather than constructing dams of coarse refuse and filling them with mud and coal fines.

* Require closure, dewatering and reclamation of the scores of abandoned coal waste impoundments still under permit.

* Require approaches to coal transfer from minesite to market to minimize disruption to communities and relieve stress on minor roads; by requiring that small residential roads not be used for haulage and mine access, but instead that dedicated haul roads meeting appropriate standards be constructed, utilized, and shared; or that conveyors be installed to belt the coal to processing facilities in order to avoid disruption of lives and communities;

* Reform the regulation of blasting impacts in order to better protect the property and lives of those residing near mining operations. The current regulatory approach does not adequately protect neighbors and their properties from damage nor result in the proper and timely imposition of responsibility for repair on companies where damage has been caused.
* Requiring that any general or individual permit authorizing discharges to waters of the Commonwealth from mine fills be revised to include water quality-based limits on conductivity in addition to the existing effluent limits for pH, iron, manganese and TSS and settleable solids. Extensive data indicates that changes in conductivity from disturbed watersheds with fills are severely impacting the quality of headwater streams in eastern Kentucky.

How well the state and federal agencies, and the industry, respond to the need for improvement in these areas remains to be seen. But I believe that each of these recommendations are appropriate indicators by which to measure the Administration’s stated commitment to environmental quality, and the land and people of the coal-producing regions in this state deserve no less.

I have included in my written comments some background material concerning valley fills and Congressional intent regarding disposal of mine spoil, and also on some of the reasons why headwater streams need and deserve protection. Thank you.
BACKGROUND MATERIAL REGARDING
VALLEY FILLS

This briefing paper is intended to give some background into the issues regarding mine spoil disposal in valley fills.

The removal of overburden (rock and soil covering a coal seam, also called “mine spoil”) in order to access a coal seam for strip contour, mountaintop, or underground mining generates a volume of spoil material greater than that removal, because of the “swell” of the rock and soil material. The surface mining laws require, absent approval of a variance allowing mountaintop removal or a variance available only to steep slope contour mines allowing retention of the flat mining “bench,” that the “approximate original contour” (AOC) of the mined area be restored, and that any “excess” spoil not needed for reclamation, be placed in a “valley fill.” The mining laws also create a “stream buffer zone” to protect areas within 100 feet of intermittent (sometimes dry) and perennial (always flowing) streams.

Both contour strip and mountaintop removal operations typically involve one or more “durable rock” fills which are created not by hauling, placing and compacting excess spoil but rather by dumping the spoil and allowing gravity to separate the rocks from the soil, with the rocks forming a toe drain at the base of the fill. These fills do not typically form a component of the post-mining land use, but instead are used to provide the cheapest place out of sight in which to discard overburden material in order to avoid further material handling and to facilitate coal excavation by dragline operations.

What is lost is the current process is that Congress disfavored disposal of spoil in valley fills, expressing concern with the long-term stability of such structures, and created the “AOC” requirement to require retention of the material on the mined area rather than disposal in valley fills.

With respect to mountaintop operations, Congress spoke specifically to the appropriate standard for determining when spoil is “excess” and is appropriate for off-site disposal in a fill or on a previously mined bench area:
Mountaintop mining is that type of steep slope operation which removes the entire upper strata of the mountain on which the operation is being conducted. This type of mining approach has been increasing in popularity over the past several years as the economics of mining have changed allowing greater or larger stripping ratios[]. Mountaintop mining also produces a massive amount of spoil to be handled and stabilized in a very difficult environment of steep slopes and high rainfall. Some approaches have been developed which keep virtually all of the spoil on the mountaintop and most recently have been described in the December 1976, issue of Coal Age. *Retention of spoil on the mountaintop bench has advantages over placement of such spoil in valleys and hollows.* However, such placement off the mountaintop does offer the possibility of improved land uses through the creation of significantly expanded areas of flat land. H.R. 2 provides some specific standards with respect to the disposal of surplus spoil off the mine bench . . .


The House Committee discussion is instructive both in expressing a clear Congressional preference for on-bench retention of spoil rather than off-site disposal in fills, but also that creation of such fills as a disposal method would be appropriate in cases where an AOC variance was granted and mountaintop removal permitted under Section 515(c)(2) *only* where the material was “surplus” or the fill would be used to expand available land *for the identified post mining land use.* Off-site disposal of spoil material was intended only where “surplus” to the planned post-mining land use.

What has been lost in the implementation of the law is that permittees are not held to any rigorous standard for justifying the off-site placement of the material as being necessary to support the post-mining landform configuration needed for the specified use. Off-site disposal of spoil material has become routine rather than the exception to the rule of on-bench retention of spoil.

Few fills associated with contour or mountaintop removal operations are either intended or configured to provide a stable surface at the top elevation of the reclaimed landscape in order to augment land available for and *necessary for* the post mining land use. Instead, it is the convenience of the permittee and the elevation of the coal seam rather than the post-mining land
use that dictates the land elevation and configuration, and all spoil lying above the coal seam is deemed potentially “excess” except that needed to meet revegetation standards. The tail thus wags the dog, and the intent of Congress that mountaintop removal mining only occur in the context of a well-planned post mining land use of industrial, commercial, agricultural, residential or public facility use, and that the post-mining land use design and needs would determine the landform as part of an integrated plan that was compatible and consistent with adjacent land uses and assured of commitments to completion, is mocked.

The surface mining act contemplates that valley fills will be created for excess spoil disposal, and also contemplates and regulates the construction of coal refuse disposal sites in valleys. But compliance with the mining law does not automatically mean that the Clean Water Act is satisfied, because the mining laws state that they do not override the requirements of other laws, including the Clean Water Act.
**Why Protect Headwater Streams? Because they:**

Provide valuable ecological goods and services (Meyer & Wallace 2001)

Provide hydrologic retention capacity the loss of which increases frequency and intensity of downstream flooding and lower base flows (Dunne & Leopold 1978). That increased frequency and intensity of flooding results in increased channel erosion downstream (Trimble 1997)

Retain sediments in headwater channels; the loss of which leads to excess sediment transport downstream (Waters 1995)

Are the most active uptake and retention sites within the stream network; (Alexander 2000, Peterson 2001) and their elimination results in increased downstream transport of nutrients with adverse effects on biota and water quality.

Provide unique habitats for aquatic biota, and their elimination from the landscape increases the vulnerability for extinction of aquatic invertebrate, amphibian, and fish species (Morse et al 1993) Darters are good example.

Provide thermal refuges for fishes when spring-fed, providing refuge from freezing during winter (Power 1999) and cool refuges in summer (Curry 1997)

Are sites for physical and biological processing of inputs of organic matter from the watershed like falling leaves. The fine particles transported from headwaters are important food resources for ecosystems downstream, and their elimination can result in reduced inputs of fine particulate food resources for downstream ecosystems.