State Regulation of CCPs & CCBs in Texas

Michael J. Nasi and Rebecca L. Fink

Lloyd Gosselink Blevins Rochelle & Townsend, P.C.

Over the past decade, coal combustion residues have been used at Texas mine sites for a variety of beneficial uses under a regulatory framework administered by the Texas Commission on Environmental Quality (TCEQ) and the Railroad Commission of Texas (RCT). TCEQ is the Texas agency with delegated authority from EPA to administer federal hazardous waste laws, including the Resource Conservation and Recovery Act (hereinafter referred to as RCRA). The RCT is the Texas agency with delegated authority from OSM to administer federal mining regulations, including the Surface Mining Control and Reclamation Act (hereinafter referred to as SMCRA).

In 2001, TCEQ promulgated explicit regulations (the “Non-waste Criteria”) governing whether a given mine site use of a coal combustion residue qualifies as a “beneficial use,” thereby rendering the residue a Coal Combustion Product (CCP), or “disposal,” thereby rendering the residue a Coal Combustion By-product (CCB). The practice of the RCT, up until the 2001 TCEQ rulemaking, was to authorize CCP mine site use based upon site-specific letters from TCEQ confirming the beneficial use status of a given residue and use. When the TCEQ practice of issuing site-specific letters ended with the promulgation of the self-implementing Non-waste Criteria, RCT staff began to express reluctance about approving mine site uses of CCPs. To ameliorate that situation and further encourage the beneficial use of CCPs, the Texas Coal Combustion Product Coalition (Texas CCP Coalition) initiated discussions with the RCT staff and management which culminated with the filing of a petition for rulemaking in 2002 to clarify and streamline the RCT regulation of CCPs in Texas. After an initial notice and comment period and OSM review, that rulemaking remains pending at the RCT while changes are made to address issues raised during the review process.

After reviewing the CCP mine site uses currently employed in Texas, this paper will review in detail the Texas regulatory framework governing those uses. As part of this review, the paper will identify and discuss the remaining issues to be resolved in the pending RCT rulemaking governing CCP use and CCB disposal at Texas mine sites. The paper will conclude with the Texas CCP Coalition’s perspective on the appropriate resolution of those issues and a reemphasis on the critical importance of a clear regulatory framework governing CCP mine site use and CCB disposal at mine sites.

I. Production of Coal Combustion Residue in Texas

---

Texas is the fifth largest coal-producing state in the nation and depends on coal for roughly 50 percent of the electricity consumed in Texas. According to the Energy Information Administration’s 2004 report, Texas consumed 105,376 short tons in 2003, making it the largest consumer of coal in the United States. Not surprisingly then, Texas is the largest producer of coal combustion residue in the United States. Texas alone produces about 15 million tons of coal ash per year, which equates to about 12% of the national total. Approximately 60%–70% of coal ash produced in Texas is currently being beneficially used. This number has increased from 15% in 1992. In some cases, Texas electricity generating facilities are able to use 100% of the ash they produce and are even reclaiming material previously disposed of in order to beneficially reuse it. Notwithstanding these numbers, there is significant room to improve: it has been reported that 83% of the Texas industrial solid waste stream is made up of coal ash that was, for whatever reason, not beneficially reused.

II. Use of CCPs at Mine Sites in Texas

Most of the coal mines in Texas have electricity generating facilities situated adjacent to the mine; the mine and the adjacent electric generating facilities are often referred to as “mine-mouth operations.” This set-up facilitates the use of CCPs at mine sites by creating a natural partnership between each mine and its adjacent electricity generating facility. Also, the proximity of the operations means that the distance CCPs have to be transported to be beneficially used is minimal. In fact, vehicles transporting coal to the electricity generating facility can, instead of returning empty for another load of coal, return with CCPs for beneficial use at the mine site.

Texas mine operators and the RCT have recognized that CCPs can be used for numerous purposes at a mine site in both the active mining operation and during the reclamation process. CCPs have been used at Texas mine sites to construct and maintain haul roads, ancillary roads, pit ramps, and construction projects such as equipment pads, drainage control structures, and erosion control structures. CCPs have also been used as fill material to achieve AOC in reclamation activities. In fact, all of the following beneficial uses have been approved and implemented at Texas mine sites:

- **Roads:** CCPs have been used as a structural fill layer to bring both primary haul roads and ancillary roads to necessary grade in place. CCPs have also been used in the road base in place of clay and aggregate. CCPs have also been used as a traction agent on primary haul roads and ancillary roads, instead of the limestone rock and other aggregate materials that are generally used.

- **Ramps:** CCPs have been used for structural fill in the construction of ramps in active pit areas in place of the use of virgin dirt or spoil material. In addition, CCPs have been used to surface the ramps to provide the necessary traction to efficiently access the pits during inclement weather conditions (i.e. when the ramps are slippery, wet, and/or frozen).

- **Construction:** CCPs have been used as a substitute for aggregate or soil and as an ingredient in cement or grout in on-site construction projects. Such projects include equipment
construction and repair pads, well pads, drainage control structures and erosion control structures.

- **Reclamation**: CCPs have been used in areas where there are low volumes of available spoil material and in order to minimize additional disturbance during the project for pit reclamation or, ultimately, at the end of the project for final pit reclamation. For Abandoned Mine Land (AML) projects, CCPs could also be used to complete reclamation for pit areas which previously had little to no reclamation performed.

### III. Existing Texas Regulations Governing CCP Use

As noted above, the two regulatory bodies governing the use of CCPs at mine sites in Texas are the TCEQ and the RCT. As the RCRA-delegate agency in Texas, the TCEQ is responsible for making the initial determination of whether the coal-combustion residue is “waste”. Material produced from coal-combustion in utility boilers may be exempted from the definition of “waste” by the TCEQ if it qualifies as a “product.” To qualify as a product—and thereafter be properly referred to as a CCP—the material must meet certain “Non-waste Criteria” (discussed further below).

Once a material is deemed to be a CCP, then the TCEQ regulation of the material is reduced to an enforcement/oversight role and the specific approvals necessary for the material to be used at Texas mine site are governed by the RCT.\(^2\) If the material does not qualify as a product, then it is considered to be a waste and is considered to be a coal combustion by-product (CCB), as opposed to a CCP. The TCEQ continues to regulate the handling and disposal of CCBs and, to the extent the disposal activity occurs within a RCT-permitted mine, the TCEQ and RCT retain concurrent jurisdiction over the activity, much as they do, for example, over sedimentation ponds (which the TCEQ regulates as the general Clean Water Act delegate agency in Texas in coordination with RCT, which retains primary day-to-day oversight of the ponds).\(^3\)

Historically, generators of coal combustion residue would submit information to the TCEQ to demonstrate that the material was a product and not a waste. The operator of the mine at which the material was proposed to be used would additionally specify the intended uses of the material. The TCEQ (formerly called the TNRCC) would then apply the “non-waste criteria” (then contained in guidance document – RG-240), and determine if the material was appropriate for exemption from being considered “waste” and, if so, issue individual letters confirming that the material was not "waste" when used for the specified purposes. The RCT staff then relied upon these confirmation letters to issue site-specific approvals for the use of CCPs at Texas mine sites.

---

2 See 26 Tex. Reg. 3807 (2001) (“The rule adds a self-implementing exemption from the definition of "solid waste" for certain recycling activities involving application of nonhazardous materials to the land or involving their use in materials which are applied to the land. The rule also eliminates the need to perform case-by-case determinations in every instance that such an exemption applies.”).

3 See Chapter 361 of the Texas Health & Safety Code; Chapter 26 of the Texas Water Code.
In 2001, the TCEQ formally adopted a rule that codified, with some changes, the non-waste criteria guidance into the definition of "solid waste". Specifically, the TCEQ adopted an amendment to Title 30, Chapter 335 of the Texas Administrative Code to exempt from the definition of “solid waste” material that meets all of the following criteria:

1. A legitimate market exists for the recycling material as well as its products.

2. The recycling material is managed and protected from loss, as would be raw materials or ingredients or products.

3. The quality of the product is not degraded by substitution of raw material or product with the recycling material.

4. The use of the recycling material is an ordinary use, and it meets or exceeds the specifications of the product it is replacing without treatment or reclamation. Or if the recycling material is not replacing a product, the recycling material is a legitimate ingredient in a production process and meets or exceeds raw material specifications without treatment or reclamation (note: treatment may impact future flue gas desulfurization (FGD) utilization; this is in another section of the report).

5. The recycling material is not burned for energy recovery, used to produce a fuel, or contained in a fuel.

6. The recycling material is a legitimate ingredient in a production process and meets or exceeds raw material specifications without treatment or reclamation.

7. The recycling material must not present an increased risk to human health, the environment, or waters of the state when applied to the land or used in products which are applied to the land and the material, as generated:

   - Is a Class 3 Waste under the TCEQ waste classification rules\(^4\); or

---
\(^4\) 30 Tex. Admin. Code 335.1(131)(H)(vii)(I), referencing Subchapter R of Chapter 330 of Title 30 of the Texas Administrative Code for purposes of determining whether the material is a Class 3 waste. In contrast to EPA regulations and several other states which end the waste classification analysis after a material is deemed non-hazardous, TCEQ regulations further define non-hazardous industrial solid wastes as belonging to one of three categories:

**Class I:** Any industrial waste that is toxic; corrosive; flammable; a strong sensitizer or irritant; a generator of sudden pressure by decomposition, heat, or other means; or may pose a substantial present or potential danger to human health or the environment. To be a CCP, material cannot be a Class I waste.

**Class II:** Any industrial waste which cannot be described as hazardous under Class I or does not meet the criteria for Class III. The majority of CCPs produced in Texas are categorized as Class II wastes.

**Class III:** Inert and essentially insoluble industrial waste. The TCEQ rules allow that Class III wastes of any kind can be used without any specific approval as fill to bring land to natural grade for development.
• Is a Class 2 Waste solely due to elevated concentrations of arsenic, cadmium, chromium, lead, mercury, nickel, selenium, and total dissolved solids and does not exceed a specified concentration limit, which is tied to the application rate of the material.\(^5\)

8. The recycling material is, in fact, recycled at a rate of at least 75% per year (by weight or volume) of the annual production rate or is transferred to a different site and recycled on an annual basis. If the recycling material is placed in protective storage, the operator is allowed a two-year period to realize the above-referenced recycling rate.

When the TCEQ adopted the Non-waste Criteria Rule, the TCEQ made it clear that the previously issued CCP authorizations would remain in effect. See 26 Tex. Reg. 3807, 3811-3812 (2001). The TCEQ also indicated in the preamble to the rule that the criteria were self-implementing as to uses not previously approved and that additional site-specific or use-specific letters were not necessary. See id. at 3807.

The TCEQ was also clear in explaining that it was not going to issue site-specific letters, but would rather depend on the individual generators and users to apply the criteria and make the waste-determination themselves. This meant that the RCT no longer had site-specific letters from the TCEQ upon which to depend in issuing approvals. It became apparent from correspondence and discussions with the RCT Surface Mining and Reclamation Division (SMRD) staff, that the SMRD staff was reluctant to encourage CCP use at mines sites due to the self-implementing nature of the TCEQ rule. This apparent reluctance on the part of SMRD staff has temporarily deterred many operators from proposing new or continued CCP uses at mine sites in Texas.

IV. Texas CCP Coalition Rulemaking Petition

In response to the above-referenced reluctance of the RCT SMRD staff, a group of electric generating facilities that produce CCPs banded together with mine operators that used CCPs or hoped to use CCPs at their mine sites to form the Texas CCP Coalition. The Texas CCP Coalition met with RCT staff and management to determine the most appropriate regulatory approach to facilitate the beneficial reuse of CCPs in Texas. It was ultimately decided that the best approach was for the Texas CCP Coalition to petition the RCT to adopt a revised set of rules that would standardize the process by which the SMRD staff would review applications to beneficially use CCPs. It was also decided that additional clarity should be brought to issues surrounding the disposal of CCBs within or adjacent to RCT-permitted mine sites.

The Texas CCP Coalition’s petition proposed specific regulatory provisions to accomplish the goals set out above. The petition additionally noted that it was appropriate—if not critical—for Texas to clarify its regulations as soon as possible because a host of federal agencies\(^6\) was then in


\(^6\) The federal evaluation of the need (or lack thereof) for federal regulation of CCP mine site uses is a cooperative effort between the Environmental Protection Agency (EPA) and Office of Surface Mining (OSM) of the Department of the Interior, with critical input by the Department of Energy (DOE) and the Interstate Mining Compact Commission (IMCC).
the process of finalizing their evaluation of whether any additional federal oversight was needed with regard to the regulation of CCP uses or CCB disposal at mine sites across the U.S. The Coalition reasoned and publicly asserted that, in order to reassure the federal government and eliminate any perceived need for EPA regulation of CCPs or CCBs, it was necessary for states such as Texas to have clear and explicit rules in place governing the waste and mine issues that are capable of being efficiently reviewed by the federal government.

The original rule petition drafted by the Texas CCP Coalition aimed to rectify the uncertainty associated with the existing regulations by defining CCBs and CCPs, affirming the several beneficial uses of CCPs at Texas mine sites, and confirming that the disposal of CCBs and the use of CCPs are mining-related activities that may be retained by a permittee in a RCT-issued mine permit. The proposed rule also attempted to reduce uncertainty by requiring an operator to submit extensive documentation so that the RCT staff would have adequate information to review and the RCT would have an adequate administrative record to support all approved mining and reclamation plans that contemplate the use of CCPs or disposal of CCBs. The Texas CCP Coalition proposed that once the proposed rule changes were in effect, RCT staff would be able to conduct more timely and efficient reviews of applications that involve the use of CCPs or disposal of CCBs at mine sites in Texas.

The language of the rule, as petitioned by the Texas CCP Coalition and proposed by the RCT in the Texas Register on November 28, 2003 is included as Attachment A to this paper.

V. Net Environmental Benefits of CCP Use at Texas Mine Sites

The proposed rule language was not intended to relax any environmental standards applicable to the practice of using CCPs and CCBs at mine sites. Rather, the Texas CCP Coalition showed that the rule would provide more certainty, due to the additional documentation requirements, and positive environmental benefits by facilitating the use of CCPs in lieu of other raw materials. The Texas CCP Coalition explained that this reduction in the need for other raw materials which would lead to a reduction in the amount of disturbed land and reduce a number of other environmental impacts associated with the use of non-CCP materials.

For example, with regard to the use of CCPs in the construction of haul roads at Texas mines, the Texas CCP Coalition explained that, absent the use of CCPs, the structural fill layer used to bring the primary roads to the necessary grade would be comprised of clay. The road base and the surface layers would be comprised of clay, aggregate, and quick lime. The use of bottom ash in place of clay and the use of fly ash and stabilized scrubber sludge in place of lime could provide several environmental benefits. First, less total land would have to be disturbed since less clay and aggregate will need to be extracted. There are numerous ancillary benefits to disrupting less land. For example, there is less potential for disturbing ecologically-valuable habitat. Second, the use of CCPs, which are readily available on-site or immediately adjacent to the mine site (at the power plant), will reduce potential diesel & particulate matter emissions and noise and safety issues associated with blasting, extracting, crushing, sizing, and hauling non-CCP materials. Third, CCPs are typically transported by truck over existing mine roads. In some operations, the transportation network not only enables the haulage of coal or lignite to the power plant, it also
allows a reverse trip to haul CCPs from the power plant to the mine area. Therefore, vehicular diesel emissions are reduced by the utilization of an otherwise empty haul truck.

The Texas CCP Coalition also advanced the environmental benefits of facilitating the use of CCPs for other beneficial uses, to include to assist in achieving AOC by providing an additional volume of material that could be used to enhance AOC activities at certain mine sites. The Texas CCP Coalition explained:

1. CCPs can be essential to ensuring and enhancing AOC in ongoing reclamation when there are periodic shortages of overburden (spoil) available for reclamation purposes in the immediate vicinity.

2. CCPs can greatly enhance the flexibility of achieving AOC by allowing the operator to lessen steeper slopes in areas where low volumes of available spoil material typically result in steeper postmine slopes.

3. Use of CCPs in other conditions of pit reclamation enable placement of the CCPs to create slope diversity and enhance postmine contours while maintaining compliance with the regulatory permitting requirements. Typically in active mine areas, CCPs are placed in pits at depth below the approved topsoil and subsoil depth increments.

4. Use of CCPs in the manners described above may reduce landowner concerns at the time of Reclamation Performance Bond release by improving the attractiveness of land features created during the reclamation process.

5. Use of CCPs for final pit reclamation provides benign material in situations where the material from a boxcut has low pH. In those situations, the CCP material would be better quality and more protective of the environment than the low pH material. Minimizing low pH conditions in the final pit would minimize that potential condition in surface water drainage and groundwater thereby minimizing or eliminating environmental degradation.

6. Use of CCPs for final pit reclamation would decrease the amount of disturbed acreage, therefore potentially decreasing disturbance acreage of vegetation and habitat by not having to re-disturb the initial boxcut area, which has been covered, revegetated and stabilized (pursuant to RCT regulations) for several years.

7. Although final pit impoundments may be appropriate in some cases, they may not always be an option, thereby making it necessary for permittees to fill in the final pit to achieve AOC. In addition, in some cases, creation of final pit impoundments may require disturbance of additional acreage to achieve the necessary side slopes depending on the intended use of the impoundment following release of the reclamation performance bond, i.e., flatter side slopes than if sloped for final pit reclamation.

8. Use of CCPs improves the material balance for reclamation of the project and provides operational flexibility, which increases the efficiency of the operation.
9. Use of CCPs in final reclamation results in reduced emissions from diesel equipment by having less acreage that needs to be disturbed.

10. Use of CCPs in some operations enables direct haul-back of CCP material from a nearby facility, i.e., electric generating facility, to the mine, which results in reduced diesel emissions and also increases the efficiency of the operation.

11. Use of CCPs for final pit reclamation may eliminate significant impacts to the reclamation timetable when not re-disturbing the boxcut area. This would ultimately result in minimizing delays in release of the Reclamation Performance Bond by not having to “start the clock” over for reclamation of a re-disturbed boxcut area.

12. By using CCP material to fill the majority of the final pit, the volume (and distance) of material required from the highwall side may be greatly reduced.

In sum, there are a number of benefits to be achieved from the use of CCPs in achieving approximate original contours—even at a side where there is technically enough soil to achieve AOC without the use of CCPs. CCPs would not be used when excess spoil would have to be landfilled, but can be used when the soil balance is marginal and utilizing the soil available requires redisturbing an original boxcut spoil pile that has likely been reclaimed years before it is needed. Redisturbing the original cut-area, moving the soil, and then reclaiming both the redisturbed area and the newly filled area can all be avoided by the use of CCPs.

Note that the net environmental benefits described above formed the foundation for a table that was included in EPA’s background documents in preparation for their facilitated stakeholders meeting on minefill practices for coal combustion residue on May 19 and 20, 2003. That table is included as Attachment B to this paper.

In addition to environmental benefits associated with the mine site use of CCPs in Texas, the Texas CCP Coalition urged in its petition the practical and economic benefits to be derived from a more efficient process for reviewing plans that contemplate CCP use and CCB disposal. In particular, the flexibility afforded by the ability to use CCPs and CCBs instead of procuring alternative products or managing the material in other locations would result in a significant cost-savings to the operator of a mine, the generator of the CCPs and CCBs, and, ultimately, the consumers of electricity in Texas. The Texas CCP Coalition argued that the cost-savings could be a critical component to the continued economic use of coal, which is the cornerstone of sound energy policy in Texas and throughout the U.S.

VI. OSM Response to Rulemaking

As required, the RCT submitted the proposed rulemaking to the Office of Surface Mining (OSM) for their comments. OSM’s response, which is included as Attachment C, requested clarification on a number of points relating to mine site use of CCPs and generally sought from the RCT a more clear “road map” on how the TCEQ and RCT concurrent jurisdiction over CCB disposal operates in Texas.
VII. Pending RCT Response to OSM – Current Status of Regulations

The RCT is currently in the process of deciding how it must revise the pending rule to be responsive to OSM’s comments. The SMRD staff drafted a set of revised rule language and narrative explanations designed to be responsive to the OSM comments. The Texas CCP Coalition has stated its concern to the RCT Commissioners, in a public meeting on January 13, 2005, that the SMRD staff made more wholesale changes than were required by OSM’s comments. For example, the OSM wrote: “By policy OSM views the disposal of coal combustion by-products as disposal of noncoal mine waste. Texas needs to clarify in its regulations or a policy document that it will require disposal operations to adhere to Texas’ noncoal mine wastes disposal regulations as well as any special and/or additional requirements that site-specific conditions may require.” In response to this request that Texas clarify that CCBs are noncoal mine waste, SMRD staff’s response defined both CCBs and CCPs as noncoal mine waste and stated that it considered the use of CCPs as fill to be a use “constituting disposal.”

It is the Texas CCP Coalition’s position that this revision to the rules goes beyond what is necessary to be responsive to OSM and the language used by the SMRD staff contradicts TCEQ regulations. The Texas CCP Coalition noted that OSM is aware of the significance of the terms “disposal” and “coal combustion by-products” as contrasted with “use” and “coal combustion products” and used its language precisely, therein not indicating any need for any change relevant to the use of CCPs.

The Texas CCP Coalition further believe that the TCEQ regulations determine whether a material is legally characterized as a “waste” or a “product” – that is, to be considered coal combustion "products" (CCPs) and not coal combustion "by-products" (CCBs) – and that inherent in the TCEQ criteria is that a material may not be considered a "product" if it is used in a manner that constitutes disposal. The Texas CCP Coalition, therefore, is pressing the issue with the RCT that it is legally inconsistent to characterize CCPs (which, by definition, meet the TCEQ non-waste criteria) as "waste" or the beneficial use of CCPs as "constituting disposal." The Texas CCP Coalition recommends, therefore, that the definition of "non-coal mine waste" should be revised to explicitly reference CCBs, but not CCPs.

There are a number of other concerns that the Texas CCP Coalition has with the RCT SMRD’s initial proposed response to OSM that will be the subject of extensive public deliberations among the RCT Commissioners in the very near term. At the time this paper is going to press, no RCT Commissioner Public Meeting has been set to deliberate the issues, but a resolution is expected very soon and, in fact, may be finalized by this paper is presented at the 2005 conference.
VIII. Conclusion

As the producer of more coal combustion residue than any other state in the union, it is critical for Texas to have a regulatory program in place that facilitates the beneficial mine site use of CCPs and clarifies the concurrent jurisdiction of the TCEQ and RCT over CCB disposal at Texas mine sites. When the RCT completes its pending rulemaking, Texas will finally have both TCEQ and RCT regulations that are clear and express so that operators, the public, and EPA can be assured of the process and the measures in place to protect human health and the environment. Especially as it relates to the beneficial mine site use of CCPs, easily discernable regulations are critical if we hope to accomplish EPA and Department of Energy goals regarding the increased beneficial reuse of CCPs.
Attachment A
(3) the state-sponsored inspection and dispute resolution process;
(4) the procedures by which complaints or requests are filed with and resolved by the Commission; and
(5) any other information designated by the Commission.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency’s legal authority to adopt.

Filed with the Office of the Secretary of State on November 17, 2003.

TRD-200307472
Stephen D. Thomas
Executive Director
Texas Residential Construction Commission

Earliest possible date of adoption: December 28, 2003

For further information, please call: (512) 463-9524

TITLE 16. ECONOMIC REGULATION

PART 1. RAILROAD COMMISSION OF TEXAS

CHAPTER 12. COAL MINING REGULATIONS

The Railroad Commission of Texas (Commission) proposes amendments to §§12.3, 12.142, 12.145, 12.147, 12.197, 12.384, 12.385 and 12.562 (relating to Definitions; Operation Plan: Maps and Plans; Reclamation Plan: General Requirements for Surface Mining; Reclamation Plan: General Requirements for Underground Mining; Operation Plan: Maps and Plans; Backfilling and Grading: General Requirements; Backfilling and Grading: General Grading Requirements; and Backfilling and Grading: General Grading Requirements).

The Commission proposes the amendments pursuant to its October 21, 2003, vote in open conference to initiate a rulemaking wholly consistent with the petition for rulemaking filed on September 4, 2003, by the Texas Coal Combustion Products Coalition (CCPC). The CCPC comprises representatives from Aeco, American Electric Power, Texas Genco, LP, San Miguel Electric Cooperative, Inc., Twin Oaks Power, TXU Mining Company LP, and Walnut Creek Mining Company.

The Commission proposes to amend §12.3 to add new paragraphs (33) and (34) defining coal combustion by-products and coal combustion products, respectively. The remaining paragraphs currently designated as paragraphs (33) - (193) will be renumbered (35) - (195).

Coal combustion by-products (CCB) are defined as any material resulting from the combustion of lignite or coal in utility boilers or industrial boilers that is not exempt from the definition of "solid waste" under 30 TAC §335.1(131)(H) (relating to Definitions), or through letter-authorizations related to surface mining and specifically identified in Table 1 in paragraph (33). In the past, the Texas Commission on Environmental Quality (TCEQ) issued letter-authorizations for reuse and recycling materials identified as solid waste. When TCEQ amended its definition of solid waste in 30 TAC §335.1(131)(H) to include provisions for reuse and recycling, it discussed letter-authorizations in the adoption preamble provided in the May 25, 2001, issue of the Texas Register at 20.

TexReg 3811-3812. The proposed definition in §12.3(33) goes on to state that coal combustion by-products may be disposed of within the Commission's permitted mining areas so long as the disposal operation complies with applicable TCEQ regulations at 30 TAC §§335.2 - 335.8 (relating to Permit Required; Technical Guidelines; General Prohibitions; Deed Recordation of Waste Disposal; Notification Requirements; Financial Assurance Required; and Closure and Remediation) and 30 TAC Chapter 335, Subchapter R (relating to Waste Classification). The proposed definition provides that where the disposal of coal combustion by-products is proposed to result in approximate original contour before the end of mining operations within the Commission's permitted area, both the disposal operation and all ancillary features (e.g., sediment control structures, roads, and other infrastructure) and activities associated with the operation shall be considered mining-related and the permittee may retain them within the Commission's mining permit for the life of the mining project. The proposed definition further provides that where the disposal of coal combustion by-products is not proposed to result in achieving approximate original contour within the life of the mining project, the disposal area shall be removed from the Commission's mining permit area, but all ancillary features associated with the disposal operations shall be considered mining-related features that the permittee may retain within the Commission's mining permit for the life of the reclamation project until final bond release.

Proposed new §12.3(34) defines coal combustion products (CCP) as fly ash, bottom ash, fluidized bed combustion ash, and flue gas desulfurization solids or sludge resulting from the combustion of lignite or coal in utility boilers or industrial boilers that is exempt from the definition of "solid waste" under 30 TAC §335.1(131)(H) (relating to Definitions) or through letter-authorizations which TCEQ has issued as referenced at 26 TexReg 3811-3812 and specifically identified in Table 1 in paragraph (33). The proposed definition provides that the utilization of coal combustion products at a Commission-permitted mining area for any of the purposes noted in the definition shall be considered a mining-related activity that the permittee may retain within the Commission's mining permit for the life of the reclamation project until final bond release. The proposed definition further provides that all associated ancillary features and activities (e.g., sediment control structures, roads, and other infrastructure) shall be considered mining-related, and which the permittee may retain within the Commission's mining permit for the life of the reclamation project until final bond release, even if the area of ultimate coal combustion products use is not retained within the mining permit for the same period of time. The proposed definition lists the specific purposes for which coal combustion products may be used, and provides references to other rules in Chapter 12 that pertain to some of the authorized uses for coal combustion products.

The proposed amendments to §12.142(2) add subparagraph (L) to require that each permit application contain maps and plans of the proposed permit area or areas which show the approximate location of any area in which coal combustion by-products have been disposed or will be disposed.

The proposed amendments to §12.145(b) add paragraph (10) to require each reclamation plan for the proposed permit area to include a description of any planned use of coal combustion products designed to achieve approximate original contour, or any proposal to dispose of coal combustion by-products in a manner that achieves approximate original contour. Proposed paragraph (10) states that when additional time to conduct rough backfilling

PROPOSED RULES November 28, 2003 28 TexReg 10591
as soon as practicable to foster informed discussion of the proposed amendments. The Commission intends to post all comments on its web site so that interested persons will have access to them. The Commission would like to have as many comments and replies as possible available for discussion at the public hearing. Final reply comments must be filed by February 28, 2004, and should address initial written comments as well as comments offered at the January 27 meeting. The Commission cannot guarantee that comments submitted after this deadline will be considered. For further information, call Malvin Hodgiss, Director, Surface Mining and Reclamation Division, at (512) 463-6901. The status of Commission rulemakings in progress, and a link to comments on this proposal, will be available at http://www.rrc.state.tx.us/rules/proposed.html.

SUBCHAPTER A. GENERAL
DIVISION 1. GENERAL

16 TAC §12.3

The Commission proposes the amendments under Texas Natural Resources Code, §134.013, which authorizes the Commission to promulgate rules pertaining to surface coal mining operations.

Statutory authority: Texas Natural Resources Code, §134.013.


Issued in Austin, Texas, on November 13, 2003.

§12.3 Definitions.

The following words and terms, when used in this Chapter (relating to Coal Mining Regulations), shall have the following meanings unless the context clearly indicates otherwise:

(1) - (32) (No change.)

(33) Coal combustion by-products—Any material resulting from the combustion of lignite or coal in utility boilers or industrial boilers that is not exempt from the definition of "solid waste" under 30 TAC §335.1(131)(H) (relating to Definitions), or TCEQ letter-authorization identified in Table I of this paragraph. Coal combustion by-products may be disposed of within the Commission's permitted mining areas so long as the disposal operation complies with applicable TCEQ regulations at 30 TAC §§335.2 - 335.8 (relating to Permit Requirements; Technical Guidelines; General Prohibitions; Deed Recordation of Waste Disposal; Notification Requirements; Financial Assurance Required; and Closure and Remediation) and 30 TAC Chapter 335, Subchapter R (relating to Waste Classification). Where the disposal of coal combustion by-products is proposed to result in approximate original contour before the end of mining operations within the Commission's permitted area, both the disposal operation and all ancillary features and activities associated with the operation shall be considered mining-related and the permittee may retain them within the Commission's mining permit for the life of the mining project. Where the disposal of coal combustion by-products is not proposed to result in achieving approximate original contour within the life of the mining project, the disposal area shall be removed from the Commission's mining permit area, but all ancillary features (e.g. sediment control structures, roads, and other infrastructure) associated with the disposal operations shall be considered mining-related features which the permittee may retain within the Commission's mining permit for the life of the reclamation project until final bond release.

Figure: 16 TAC §12.3(33)

(34) Coal combustion products—Fly ash, bottom ash, fluidized bed combustion ash, and flue gas desulfurization solids or sludge resulting from the combustion of lignite or coal in utility boilers or industrial boilers that is exempt from the definition of "solid waste" under 30 TAC §335.1(131)(H) (relating to Definitions) or TCEQ letter-authorization as referenced in Table I of this paragraph (33) of this section. The utilization of coal combustion products at a Commission-permitted mining area for any of the purposes noted in this paragraph shall be considered a mining-related activity which the permittee may retain within the Commission's mining permit for the life of the reclamation project until final bond release. All associated ancillary features and activities (e.g. sediment control structures, roads, and other infrastructure) shall be considered a mining-related activity which the permittee may retain within the Commission's mining permit for the life of the reclamation project until final bond release, even if the area of ultimate coal combustion products use is not retained within the mining permit for the same period of time. Coal combustion products may be used for the following purposes:

(A) surfacing material, traction agent, road base material, and structural fill material used to bring roads to necessary grade and for primary or auxiliary roads in compliance with §§12.154, 12.198, 12.400, 12.401, 12.509, and 12.570 of this title (relating to Road Systems and Support Facilities; Road Systems and Support Facilities; Roads; General; Primary Roads; Roads; General, and Primary Roads) and any other sections providing requirements relating to road construction and maintenance;

(B) surfacing material, traction agent, road base material, and structural fill material used in the construction of ramps in active pit areas;

(C) fill material to be used to achieve approximate original contour in accordance with §§12.145, 12.187, 12.183 - 12.388, and 12.550 - 12.558 of this title (relating to Reclamation Plan; General Requirements for Surface Mining; Reclamation Plan; General Requirements for Underground Mining; Contemporaneous Reclamation; Backfilling and Grading; General Requirements; Backfilling and Grading; General Grading Requirements; Backfilling and Grading; Covering Coal and Acid- and Toxic-forming Materials; Stabilization of Surface Areas for Underground Mining; Revegetation; General Requirements; Revegetation; Use of Introduced Species; Revegetation; Timing; and, Revegetation; Mulching and Other Soil Stabilization Practices), and any other sections providing requirements relating to the use of fill material in achieving approximate original contour;

(D) substitute for aggregate/soil or an ingredient in cement/grout used in on-site construction of such projects as equipment construction pads and repair pads, well pads, and drainage and erosion control structures in compliance with §§12.139, 12.140, 12.148, 12.185, 12.186, and 12.190 of this title (relating to Operation Plan: General Requirements; Operation Plan: Existing Structures; Reclamation Plan: Ponds, Impoundments, Banks, Dams, and Embankments; Operation Plan: General Requirements; Operation Plan: Existing Structures; Reclamation Plan: Ponds, Impoundments, Banks, Dams, and Embankments) and any other sections providing requirements relating to on-site construction projects;

(E) soil stabilization additive to reduce the shrink and swell factors as water either evaporates from the soil or infiltrates into the soil in compliance with §§12.145, 12.187, 12.201, 12.338, 12.389 - 12.393, 12.508, and 12.554 - 12.558 of this title (relating to Reclamation Plan: General Requirements for Surface Mining; Reclamation Plan: General Requirements for Underground Mining; Prime

PROPOSED RULES November 28, 2003 28 TexReg 10593
(50) [48] Cumulative impact area—The area, including the permit area, within which impacts resulting from the proposed operation may interact with the impacts of all anticipated mining on surface-water and ground-water systems. Anticipated mining shall include, at a minimum, the entire projected lives through bond release of:

(A) the proposed operation;

(B) all existing operations;

(C) any operation for which a permit application has been submitted to the Commission; and

(D) all operations required to meet diligent development requirements for leased federal coal for which there is actual mine development information available.

(21) [49] Cumulative measurement period—As used in §§12.25 - 12.33 of this title (relating to Exemption for Coal Extraction Incidental to the Extraction of Other Minerals), the period of time over which both cumulative production and cumulative revenue are measured.

(A) For purposes of determining the beginning of the cumulative measurement period, subject to Commission approval, the operator must select and consistently use one of the following:

(i) for mining areas where coal or other minerals were extracted prior to August 3, 1977, the date of extraction of coal or other minerals commenced at that mining area on or before August 3, 1977; or

(ii) for mining areas where extraction of coal or other minerals commenced on or after August 3, 1977, the date extraction of coal or other minerals commenced at that mining area, whichever is earlier.

(B) For annual reporting purposes pursuant to §12.33 of this title (relating to Reporting Requirements), the end of the period for which cumulative production and revenue is calculated is either:

(i) for mining areas where coal or other minerals were extracted prior to the effective date of §§12.25 - 12.33 of this title, the first anniversary of that date, and each anniversary of that date thereafter; or

(ii) for mining areas where extraction of coal or other minerals commenced on or after the effective date of §§12.25 - 12.33 of this title, the last day of the calendar quarter during which coal extraction commenced, and each anniversary of that date thereafter.

(32) [50] Cumulative production—As used in §§12.25 - 12.33 of this title, the total tonnage of coal or other minerals extracted from a mining area during the cumulative measurement period. The inclusion of stockpiled coal and other mineral tonnages in this total is governed by §12.31 of this title (relating to Stockpiling of Minerals).

(33) [51] Cumulative revenue—As used in §§12.25 - 12.33 of this title, the total revenue derived from the sale of coal or other minerals and the fair market value of coal or other minerals transferred or used, but not sold, during the cumulative measurement period.

(49) [52] Department—The U.S. Department of the Interior.

(55) [53] Direct financial interest—Ownership or part ownership by an employee of lands, stocks, bonds, debentures, warrants, partnership shares, or other holdings and also means any other arrangement where the employee may benefit from his or her holding in or salary from coal mining operations. Direct financial interests include employment, pensions, creditor, real property and other financial relationships.

(56) [54] Director—The Director or Acting Director, Office of Surface Mining Reclamation and Enforcement, U.S. Department of the Interior, or the Director's representative.

(59) [55] Disturbed area—An area where vegetation, topsoil, or overburden is removed or upon which topsoil, spoil, coal processing waste, underground development waste, or noncoal waste is placed by surface coal mining operations. Those areas are classified as disturbed until reclamation is complete and the performance bond or other assurance of performance required by Subchapter J of this chapter (relating to Bond and Insurance Requirements for Surface Coal Mining and Reclamation Operations) is released.

(60) [56] Diversion—A channel, embankment, or other manmade structure constructed to divert water from one area to another.

(61) [57] Division—The Surface Mining and Reclamation Division of the Railroad Commission of Texas.

(62) [58] Downslope—The land surface between the projected outcrop of the lowest coal bed being mined along each highwall and a valley floor.

(63) [59] Embankment—An artificial deposit of material that is raised above the natural surface of the land and used to contain, divert, or store water, support roads or railways, or for other similar purposes.

(64) [60] Employee—Shall include:

(A) any person employed by the Commission who performs any function or duty under the Act, including the Commissioners;

(B) Advisory board or Commission members and consultants who perform any function or duty under the Act, if they perform decision making functions for the Commission under the authority of state law or regulations. However, members of advisory boards or commissions established in accordance with state law or regulations to represent multiple interests are not considered to be employees.

(65) [61] Ephemeral stream—A stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice, and which has a channel bottom that is always above the local water table.

(66) [62] Essential hydrologic function—The role of an alluvial valley floor in collecting, storing, regulating, and making the natural flow of surface or ground water, or both, usefully available for agricultural activities by reason of the valley floor's topographic position, the landscape and the physical properties of its underlying materials. A combination of these functions provides a water supply during extended periods of low precipitation.

(A) The role of the valley floor in collecting water includes accumulating runoff and discharge from aquifers in sufficient amounts to make the water available at the alluvial valley floor greater than the amount available from direct precipitation.

(B) The role of the alluvial valley floor in storing water involves limiting the rate of discharge of surface water, holding moisture in soils, and holding ground water in porous materials.

(C) The role of the alluvial valley floor in regulating:

(i) the natural flow of surface water results from the characteristic configuration of the channel flood plain and adjacent low terraces; and
outside the specific 5-years-in-10 criterion, in which case the regula-
tions for prime farmland may be applied to include more years of
cropland history only to increase the prime farmland acreage to be pre-
served; or

(C) lands that would likely have been used as cropland for
any 5 out of the last 10 years, immediately preceding such acquisi-
tion but for some fact of ownership or control of the land unrelated to
the productivity of the land.

(86) [844] Historic lands--Historic, cultural, or scientific
resources. Examples of historic lands include archeological sites, Na-
tional Historic Landmarks, properties listed on or eligible for listing on
a state or National Register of Historic Places, properties having reli-
gious or cultural significance to Native Americans or religious groups,
and properties for which historic designation is pending.

(87) [85] Hydrologic balance--The relationship between
the quality and quantity of water inflow to, water outflow from, and
water storage in a hydrologic unit such as a drainage basin, aquifer,
soil zone, lake, or reservoir. It encompasses the dynamic relationships
among precipitation, runoff, evaporation, and changes in ground and
surface water storage.

(88) [860] Hydrologic regime--The entire state of water
movement in a given area. It is a function of the climate and includes
the phenomena by which water first occurs as atmospheric water vapor,
passes into a liquid or solid form, falls as precipitation, moves along
or into the ground surface, and returns to the atmosphere as vapor by
means of evaporation and transpiration.

(89) [873] Iniminent danger to the health and safety of the
public--The existence of any condition or practice, or any violation of
a permit or other requirements of the Act in a surface coal mining and
reclamation operation, which condition, practice, or violation could
reasonably be expected to cause substantial physical harm to persons
outside the permit area before such condition, practice, or violation can
be abated. A reasonable expectation of death or serious injury before
abatement exists if a rational person, subjected to the same condition
or practices giving rise to the peril, would not expose himself to the
danger during the time necessary for abatement.

(90) [889] Impoundment--A closed basin, naturally
formed or artificially built, which is dammed or excavated for the
retention of water, sediment, or waste.

(91) [890] Indian lands--All lands, including mineral in-
terests, within the exterior boundaries of any federal Indian reserva-
tion, notwithstanding the issuance of any patent, and including rights-
of-way, and all lands including mineral interests held in trust for or su-
supervised by an Indian tribe.

(92) [900] Indian tribe--Any Indian tribe, band, group, or
community having a governing body recognized by the Secretary.

(93) [914] Indirect financial interest--The same financial
relationships as for direct ownership, but where the employee reaps the
benefits of such interest, including interests held by his or her spouse,
minor child and other relatives, including in-laws, residing in the em-
ployee's home. The employee will not be deemed to have an indi-
rect financial interest if there is no relationship between the employee's
functions or duties and the coal mining operation in which the spouse,
minor children or other resident relatives hold a financial interest.

(94) [920] In situ processes--Activities conducted on
the surface or underground in connection with in-place distillation, retor-
ing, leaching, or other chemical or physical processing of coal. The
term includes, but is not limited to, in situ gasification, in situ leaching,
slurry mining, solution mining, borehole mining, and fluid recovery
mining.

(95) [935] Intermittent stream--A stream or reach of a
stream that:

(A) drains a watershed of at least one square mile; or

(B) is below the local water table for at least some part of
the year, and obtains its flow from both surface runoff and ground-
water discharge.

(96) [945] Irreparable damage to the environment--Any
damage to the environment that cannot be or has not been corrected
by actions of the applicant.

(97) [950] Knowingly--With respect to §§12.696-12.699
of this title (relating to Individual Civil Penalties), that an individual
knew or had reason to know in authorizing, ordering, or carrying out
an act or omission on the part of a corporate permittee that such act or
omission constituted a violation, failure, or refusal.

(98) [96] Land use--Specific uses or management-related
activities, other than the vegetation or cover of the land. Land uses
may be identified in combination when joint or seasonal uses occur.
Changes of land use or uses from one of the following categories to
another shall be considered as a change to an alternative land use which
is subject to approval by the Commission.

(A) Cropland. Land used for the production of adapted
crops for harvest, alone or in a rotation with grasses and legumes, and
includes row crops, small grain crops, hay crops, nursery crops, or-
chard crops, and other similar specialty crops. Land used for facilities
in support of cropland farming operations which is adjacent to or an
integral part of these operations is also included for purposes of these
land use categories.

(B) Pastureland or land occasionally cut for hay. Land
used primarily for the long-term production of adapted, domesticated
forage plants to be grazed by livestock or occasionally cut and cured
for livestock feed. Land used for facilities in support of pastureland
or land occasionally cut for hay which is adjacent to or an integral part
of these operations is also included.

(C) Grazingland. Includes both grasslands and forest
lands where the indigenous vegetation is actively managed for grazing,
brrowsing, or occasional hay production. Land used for facilities in
support of ranching operations which are adjacent to or an integral part
of these operations is also included.

(D) Forestry. Land used or managed for the long-term
production of wood, wood fiber, or wood derived products. Land used
for facilities in support of forest harvest and management operations
which is adjacent to or an integral part of these operations is also in-
cluded.

(E) Residential. Includes single- and multiple-family
housing, mobile home parks, and other residential lodgings. Land used
for facilities in support of residential operations which is adjacent to or
an integral part of these operations is also included. Support facilities
include, but are not limited to, vehicle parking and open space that
directly relate to the residential use.

(F) Industrial/Commercial. Land used for:

(i) extraction or transformation of materials for fab-
rication of products, wholesaling of products, or for long-term storage
of products. This includes all heavy and light manufacturing facilities,
such as lumber and wood processing, chemical manufacturing, petro-
leum refining, and fabricated metal products manufacturing. Land used
(115) (113) Perennial stream—A stream or part of a stream that flows continuously during all of the calendar year as a result of ground-water discharge or surface runoff. The term does not include intermittent stream or ephemeral stream.

(116) (114) Performance bond—A surety bond, collateral bond or self-bond or a combination thereof, by which a permittee assures faithful performance of all the requirements of the Act, this chapter, and the requirements of the permit and reclamation plan.

(117) (115) Performing any function or duty under this Act—Those decisions or actions, which if performed or not performed by an employee, affect the programs under the Act.

(118) (144) Permanent diversion—A diversion remaining after surface coal mining and reclamation operations are completed which has been approved for retention by the Commission and other appropriate state and federal agencies.

(119) (147) Permanent impoundment—An impoundment which is approved by the Commission and, if required, by other state and federal agencies for retention as part of the postmining land use.

(120) (148) Permit—A permit to conduct surface coal mining and reclamation operations issued by the Commission.

(121) (149) Permit area—The area of land and water indicated on the map submitted by the operator with his application, as approved by the Commission, which area shall be covered by the operator’s bond as required by §§134.121-134.127 of the Act and shall be readily identifiable by appropriate markers on the site. This area shall include, at a minimum, all areas which are or will be affected by the surface coal mining and reclamation operations during the term of the permit.

(122) (149) Permittee—A person holding or required by the Act or this chapter to hold a permit to conduct surface or underground coal mining and reclamation operations issued by the Commission.

(123) (144) Person—An individual, partnership, society, joint stock company, firm, company, corporation, business organization, governmental agency, or any organization or association of citizens.

(124) (143) Person having an interest which is or may be adversely affected or person with a valid legal interest—Shall include any person:

(A) who uses any resources of economic, recreational, aesthetic, or environmental value that may be adversely affected by coal exploration or surface coal mining and reclamation operations or any related action of the Commission, or

(B) whose property is or may be adversely affected by coal exploration or surface coal mining and reclamation operations or any related action of the Commission.

(125) (143) Precipitation event—A quantity of water resulting from drizzle, rain, snow, sleet, or hail in a limited period of time. It may be expressed in terms of recurrence interval. As used in these regulations, precipitation event also includes that quantity of water emanating from snow cover as snowmelt in a limited period of time.

(126) (144) Previously mined area—Land affected by surface coal mining operations prior to August 3, 1977, that has not been reclaimed to the standards of this chapter.

(127) (145) Prime farmland—Those lands which are defined by the Secretary of Agriculture in 7 CFR 657 and which have been historically used for cropland.

(128) (126) Principal shareholder—Any person who is the record or beneficial owner of 10% or more of any class of voting stock.

(129) (127) Probable cumulative impacts—The expected total qualitative, and quantitative, direct and indirect effects of mining and reclamation activities on the hydrologic regime.

(130) (128) Probable hydrologic consequences—The projected result of proposed surface coal mining and reclamation operations which may reasonably be expected to change the quantity or quality of the surface- or ground-water flow, timing, and pattern; the stream-channel conditions; and the aquatic habitat on the permit area and other affected areas.

(131) (129) Professional specialist—A person whose training, experience, and professional certification or licensing are acceptable to the Commission for the limited purpose of performing certain specified duties under this chapter.

(132) (129) Prohibited financial interest—Any direct or indirect financial interest in any coal mining operation.

(133) (131) Property to be mined—Both the surface estates and mineral estates within the permit area and the area covered by underground workings.

(134) (132) Public building—Any structure that is owned or leased, and principally used by a governmental agency for public business or meetings.

(135) (133) Publicly-owned park—A public park that is owned by a federal, state or local governmental entity.

(136) (134) Public office—A facility under the direction and control of a governmental entity which is open to public access on a regular basis during reasonable business hours.

(137) (135) Public park—An area or portion of an area dedicated or designated by any federal, state, or local agency primarily for public recreational use, whether or not such use is limited to certain times or days, including any land leased, reserved, or held open to the public because of that use.

(138) (136) Public road—Any thoroughfare open to the public for passage of vehicles.

(139) (137) Qualified jurisdiction—A state or federal mining regulatory authority that has a blaster certification program approved by the U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement, in accordance with the Federal Act.

(140) (138) Qualified laboratory—A designated public agency, private firm, institution, or analytical laboratory that can provide the required determination of probable hydrologic consequences or statement of results of test borings or core samplings or other services as specified at §§12.236 and 12.240 of this title (relating to Program Services, and Data Requirements), and that meets the standards of §12.241 of this title (relating to Qualified Laboratories).

(141) (139) Rangeland—Land on which the natural potential (climate) plant cover is principally native grasses, forbs, and shrubs valuable for forage. This land includes natural grass lands and savannas, such as prairies, and juniper savannas, such as brushlands. Except for brush control, management is primarily achieved by regulating the intensity of grazing and season of use.

(142) (140) Recharge capacity—The ability of the soils and underlying materials to allow precipitation and runoff to infiltrate and reach the zone of saturation.
(160) Soil horizons—Contrasting layers of soil parallel or nearly parallel to the land surface. Soil horizons are differentiated on the basis of field characteristics and laboratory data. The four master soil horizons are:

(A) A horizon. The uppermost mineral layer, often called the surface soil. It is the part of the soil in which organic matter is most abundant, and leaching of soluble or suspended particles is typically the greatest.

(B) E horizon. The layer commonly near the surface below an A horizon and above a B horizon. An E horizon is most commonly differentiated from an overlying A horizon by lighter color and generally has measurably less organic matter than the A horizon. An E horizon is most commonly differentiated from an underlying B horizon in the same sequum by color of higher value or lower chroma, by coarser texture, or by a combination of these properties.

(C) B horizon. The layer that typically is immediately beneath the E horizon and often called the subsoil. This middle layer commonly contains more clay, iron, or aluminum than the A, E, or C horizons; and

(D) C horizon. The deepest layer of soil profile. It consists of loose material or weathered rock that is relatively unaffected by biologic activity.

(161) Soil survey—A field and other investigation, resulting in a map showing the geographic distribution of different kinds of soils and an accompanying report that describes, classifies, and interprets such soils for use. Soil surveys must meet the standards of the National Cooperative Soil Survey.

(162) Spoil—Overburden that has been removed during surface coal mining operations.

(163) Stabilize—To control movement of soil, spoil piles, or areas of disturbed earth by modifying the geometry of the mass, or by otherwise modifying physical or chemical properties, such as by providing a protective surface coating.

(164) Steep slope—Any slope of more than 20 degrees or such lesser slope as may be designated by the Commission after consideration of soil, climate, and other characteristics of a region or state.

(165) Subirrigation—With respect to alluvial valley floors, the supplying of water to plants from underneath or from a semi-saturated or saturated subsurface zone where water is available for use by vegetation. Subirrigation may be identified by:

(A) diurnal fluctuation of the water table, due to the differences in nighttime and daytime evapotranspiration rates;

(B) increasing soil moisture from a portion of the root zone down to the saturated zone, due to capillary action;

(C) mottling of the soils in the root zones;

(D) existence of an important part of the root zone within the capillary fringe or water table of an alluvial aquifer; or

(E) an increase in streamflow or a rise in ground-water levels, shortly after the first killing frost on the valley floor.

(166) Substantial legal and financial commitments in a surface coal mining operation—Significant investments that have been made on the basis of a long-term coal contract in power plants, railroads, coal-handling, preparation, extraction or storage facilities and other capital-intensive activities. An example would be an existing mine, not actually producing coal, but in a substantial stage of development prior to production. Costs of acquiring the coal in place or the right to mine it without an existing mine, as described in the above example, alone are not sufficient to constitute substantial legal and financial commitments.

(167) Substantially disturb—For purposes of coal exploration, to significantly impact land, air or water resources by such activities as blasting, mechanical excavation; drilling or altering coal or water exploratory holes or wells; removal of vegetation, topsoil, or overburden; construction of roads or other access routes; placement of structures, excavated earth, or waste material on the natural surface of land; or by other such activities, or to remove more than 250 tons of coal.

(168) Successor in interest—Any person who succeeds to rights granted under a permit, by transfer, assignment, or sale of such rights.

(169) Surface coal mining and reclamation operations—Surface coal mining operations and all activities necessary or incidental to the reclamation of such operations. This term includes the term surface coal mining operations.

(170) Surface coal mining operations—Includes:

(A) activities conducted on the surface of lands in connection with a surface coal mine or, subject to the requirements of §134.015 of the Act, surface operations and surface impacts incident to an underground coal mine, the products of which enter or the operations of which directly or indirectly affect interstate commerce. Such activities include excavation for the purposes of obtaining coal, including such common methods as contour, strip, auger, mountaintop removal, box cut, open pit, and area mining; the use of explosives and blasting; in situ distillation or retorting; leaching or other chemical or physical processing; the cleaning, concentrating, or other processing or preparation of coal; and the loading of coal for interstate commerce at or near the mine-site. Provided, however, that such activities do not include the extraction of coal incidental to the extraction of other minerals, where the coal does not exceed 16 2/3% of the tonnage of minerals removed annually from all sites operated by a person on contiguous tracts of land for purposes of commercial use or sale, or coal exploration subject to §134.014 and §134.031(d) of the Act; and provided further, that excavation for the purpose of obtaining coal includes extraction of coal from coal refuse piles; and

(B) areas upon which the activities described in subparagraph (A) of this definition occur or where such activities disturb the natural land surface. Such areas shall also include any adjacent land the use of which is incidental to any such activities, all lands affected by the construction of new roads or the improvement or use of existing roads to gain access to the site of those activities and for haulage and excavation, workings, impoundments, dams, ventilation shafts, entryways, refuse banks, dumps, stockpiles, overburden piles, spoil banks, calf banks, tailings, holes or depressions, repair areas, storage areas, processing areas, shipping areas, and other areas upon which are site structures, facilities, or other property or material on the surface, resulting from or incidental to those activities.

(171) Surface mining activities—Those surface coal mining and reclamation operations incident to the extraction of coal from the earth by removing the materials over a coal seam, before recovering the coal, by auger coal mining, or by recovery of coal from a deposit that is not in its original geologic location.

(172) Surface operations and impacts incident to an underground coal mine—All activities involved in or related to underground coal mining which are either conducted on the surface of the land, produce changes in the land surface or disturb the surface, air or water resources of the area, including all activities listed in
relied upon to establish property rights. If no applicable state law exists, custom and generally accepted usage at the time and place that the documents came into existence will govern their interpretation.

(B) Additional demonstrations. Except as provided in subparagraph (C) of this paragraph, a person claiming valid existing rights must also demonstrate compliance with one of the following standards:

(i) Good faith/all permits standard. All permits and other authorizations required to conduct surface coal mining operations have been obtained, or a good faith effort to obtain all necessary permits and authorizations has been made, before the land came under the protection of §12.71(a) of this title or §134.022 of the Act. At a minimum, an application must have been submitted for any permit required under Subchapter G of this chapter (relating to Surface Coal Mining and Reclamation Operations, Permits, and Coal Exploration Procedure Systems); or

(ii) Needed for and adjacent standard. The land is needed for and immediately adjacent to a surface coal mining operation for which all permits and other authorizations required to conduct surface coal mining operations have been obtained, or a good faith effort to obtain all permits and authorizations has been made, before the land came under the protection of §12.71(a) of this title or §134.022 of the Act. To meet this standard, a person must demonstrate that prohibiting expansion of the operation onto that land would unfairly impact the viability of the operation as originally planned before the land came under the protection of §12.71(a) of this title or §134.022 of the Act. Except for operations in existence before August 3, 1977, or for which a good faith effort to obtain all necessary permits have been made before August 3, 1977, this standard does not apply to lands already under the protection of §12.71(a) of this title or §134.022 of the Act when the Commission approved the permit for the original operation or when the good faith effort to obtain all necessary permits for the original operation was made. In evaluating whether a person meets this standard, the Commission may consider factors as such:

(I) the extent to which coal supply contracts or other legal and business commitments that predate the time that the land came under the protection of §12.71(a) of this title or §134.022 of the Act depend upon use of that land for surface coal mining operations;

(II) the extent to which plans used to obtain financing for the operation before the land came under the protection of §12.71(a) of this title or §134.022 of the Act rely upon use of that land for surface coal mining operations;

(III) the extent to which investments in the operation before the land came under the protection of §12.71(a) of this title or §134.022 of the Act rely upon use of that land for surface coal mining operations; and

(IV) whether the land lies within the area identified on the life-of-mine map submitted under §12.136(3) of this title (relating to Maps: General Requirements) or §12.182(3) of this title (relating to Maps: General Requirements) before the land came under the protection of §12.71(a) of this title.

(C) Roads. A person who claims valid existing rights to use or construct a road across the surface of lands protected by §12.71(a) of this title or §134.022 of the Act must demonstrate that one or more of the following circumstances exist if the road is included within the definition of "surface coal mining operations" in this section:

(i) the road existed when the land upon which it is located came under the protection of §12.71(a) of this title or §134.022 of the Act, and the person has a legal right to use the road for surface coal mining operations;

(ii) a properly recorded right of way or easement for a road in that location existed when the land came under the protection of §12.71(a) of this title or §134.022 of the Act, and, under the document creating the right of way or easement, and under subsequent conveyances, the person has a legal right to use or construct a road across the right of way or easement for surface coal mining operations;

(iii) a valid permit for use or construction of a road in that location for surface coal mining operations existed when the land came under the protection of §12.71(a) of this title or §134.022 of the Act; or

(iv) valid existing rights exist under subparagraphs (A) and (B) of this paragraph.

(190) [(488)] Valley fill—A fill structure consisting of any material other than coal waste and organic material that is placed in a valley where side slopes of the existing valley measured at the steepest point are greater than 20 degrees or the average slope of the profile of the valley from the toe of the fill to the top of the fill is greater than 10 degrees.

(191) [(489)] Violation, failure, or refusal—With respect to §§12.696 - 12.699 of this title, a violation of or a failure to comply with any order of the Commission including, but not limited to, a condition of a permit, notice of violation, failure-to-abate cessation order, eminent harm cessation order, or order to show cause why a permit should not be suspended or revoked, and order in connection with a civil action for relief, except an order incorporated in a decision issued under §134.175 of the Act.

(192) [(490)] Violation notice—Any written notification from a governmental entity of a violation of law, whether by letter, memorandum, legal or administrative pleading, or other written communication.

(193) [(491)] Water table—The upper surface of a zone of saturation, where the body of ground water is not confined by an overlying impermeable zone.

(194) [(492)] Willfully—With respect to §§12.696 - 12.699 of this title, that an individual acted:

(A) either intentionally, voluntarily, or consciously; and

(B) with intentional disregard or plain indifference to legal requirements in authorizing, ordering, or carrying out a corporate permittee's action or omission that constituted a violation, failure, or refusal.

(195) [(493)] Willful violation—An act or omission which violates the Act, state, or federal laws or regulations, or any permit condition required by the Act or this chapter, committed by a person who intends the result which actually occurs.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Filed with the Office of the Secretary of State on November 13, 2003.

TRD-200307792
Mary Ross McDonald
Managing Director
Railroad Commission of Texas

Earliest possible date of adoption: December 28, 2003
For further information, please call: (512) 475-1255

PROPOSED RULES November 28, 2003 28 TexReg 10603
and to plug, cease or manage exploration holes, other bore holes, wells and other openings within the proposed permit area, in accordance with §§12.501–12.503 of this title (relating to Casing and Sealing of Exposed Underground Openings: General Requirements; [to]; Casing and Sealing of Underground Openings: Temporary; and [and]; Casing and Sealing of Underground Openings: Permanent); [and]

(9) a description of steps to be taken to comply with the requirements of the Clean Air Act (42 U.S.C. 7401 et seq.), the Clean Water Act (33 U.S.C. 1251 et seq.), and other applicable air and water-quality laws and regulations and health and safety standards; [and]

(10) a description of any planned use of coal combustion products designed to achieve approximate original contour or any proposal to dispose of coal combustion by-products in a manner that achieves approximate original contour. When additional time to conduct backfilling and grading is requested to allow for the use of coal combustion products or the disposal of coal combustion by-products, the description shall include a planned time frame for those activities. The proposed time frame may include extensions of the time frames under §12.551(a) of this title (relating to Backfilling and Grading: General Requirements) to facilitate the cost-effective utilization of coal combustion products and by-products considering generation rates, transportation issues, market conditions, and other relevant factors. Ancillary features (e.g., sediment control structures, roads, and other infrastructure) associated with the use of coal combustion products or coal combustion by-products shall be considered mining-related activities which the permittee may retain within the Commission’s mining permit for the life of the reclamation project until final bond release.

Each application shall contain maps, plans, and cross sections of the proposed permit and adjacent areas as follows:

(1) (No change.)

(2) the following shall be shown for the proposed permit area unless specifically required for the permit and adjacent area by the requirements of this section:

(A) · (K) (No change.)

(L) location of each water and subsidence monitoring point; [and]

(M) location of each facility that will remain on the proposed permit area as a permanent feature, after the completion of underground mining activities; [and]

(N) the approximate location of any area in which coal combustion by-products will be disposed.

(3) · (4) (No change.)

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency’s legal authority to adopt.

Filed with the Office of the Secretary of State on November 13, 2003.

TRD-2003-07605
Mary Ross McDonald
Managing Director
Railroad Commission of Texas
Earliest possible date of adoption: December 28, 2003
For further information, please call: (512) 475-1265

SUBCHAPTER K. PERMANENT PROGRAM PERFORMANCE STANDARDS
DIVISION 2. PERMANENT PROGRAM PERFORMANCE STANDARDS–SURFACE MINING ACTIVITIES
16 TAC §12.384, §12.385
The Commission proposes the amendments under Texas Natural Resources Code, §134.013, which authorizes the Commission to promulgate rules pertaining to surface coal mining operations.

Statutory authority: Texas Natural Resources Code, §134.013.

Issued in Austin, Texas, on November 13, 2003.


(a) Timing of backfilling and grading.

(1) Contour mining. Rough backfilling and grading shall follow coal removal by not more than 60 days or 1,500 linear feet. The Commission may grant additional time for rough backfilling and grading if the permittee can demonstrate, through a detailed written analysis under §12.145(b)(3) or (b)(10) of this title (relating to Reclamation Plan: General Requirements for Surface Mining), that additional time is necessary.

(2) Open pit mining with thin overburden. Rough backfilling and grading shall occur in accordance with the time schedule approved by the Commission, on the basis of the materials submitted under §12.145(b)(3) or (b)(10) of this title (relating to Reclamation Plan: General Requirements for Surface Mining), which shall specifically establish in stated increments the period between removal of coal and completion of backfilling and grading.

(3) Area strip mining (cyclic excavation). Rough backfilling and grading shall be completed within 180 days following coal removal and shall not be more than one spoil ridge behind the pit being worked, the spoil from the active pit being considered the first ridge. The Commission may grant additional time and/or distance for rough backfilling and grading if the permittee can demonstrate, through a detailed written analysis under §12.145(b)(3) or (b)(10) of this title (relating to Reclamation Plan: General Requirements for Surface Mining), that additional time and/or distance is necessary.

(4) Area strip mining (continuous excavation). Rough backfilling and grading shall occur in accordance with the time schedule approved by the Commission, on the basis of a detailed written analysis by the permittee under §12.145(b)(3) or (b)(10) of this title (relating to Reclamation Plan: General Requirements for Surface Mining), and any additional information which the Commission may require.

(b) (No change.)


(a) · (e) (No change.)

(f) In the case of a reclamation plan in which coal combustion products are designed to achieve approximate original contour or coal combustion by-products are proposed to be disposed of in a manner that achieves approximate original contour, the following information shall be submitted as applicable:

PROPOSED RULES November 28, 2003 28 TexReg 10605
TABLE 1: LETTER AUTHORIZATIONS FOR REUSE OF BOTTOM ASH AT TEXAS LIGNITE MINES

<table>
<thead>
<tr>
<th>Company</th>
<th>Mine (Pmt. No.)</th>
<th>Bottom Ash Disposal/Reuse</th>
<th>Disposal/Beneficial Reuse Method</th>
<th>TCEQ Letter Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcoa Inc</td>
<td>Sadow (1E)</td>
<td>D, R</td>
<td>Roads, Fill</td>
<td>8/25/1995</td>
</tr>
<tr>
<td></td>
<td>Three Oaks (48)</td>
<td>R</td>
<td>Roads</td>
<td>8/25/1995</td>
</tr>
<tr>
<td>The Sabine Mining Co.</td>
<td>South Hallsville No. 1 (33E)</td>
<td>R</td>
<td>AOC, Ramp Advance, Roads</td>
<td>12/17/1998</td>
</tr>
<tr>
<td>TXU Mining Company LP</td>
<td>Big Brown (3D)</td>
<td>R</td>
<td>Roads, Fill</td>
<td>3/31/1999</td>
</tr>
<tr>
<td></td>
<td>Martin Lake (4H)</td>
<td>R</td>
<td>Roads</td>
<td>4/21/1992</td>
</tr>
<tr>
<td></td>
<td>Oak Hill (22D &amp; 46A)</td>
<td>R</td>
<td>Roads</td>
<td>4/21/1992</td>
</tr>
<tr>
<td>Walnut Creek Mining Co.</td>
<td>Calvert (27F)</td>
<td>R</td>
<td>Roads</td>
<td>3/25/1998</td>
</tr>
</tbody>
</table>

1The information in this table was obtained largely from the portion of the permit application files concerning general requirements for operations plans, as provided in 16 TAC §12.139(2)(D) (relating to Operation Plan: General Requirements).

2Title 30 of the Texas Administrative Code (TAC) addresses environmental quality. According to 30 TAC §335.506 and §335.507, fly ash is a Class II waste, and bottom ash is a Class III waste unless classed as a coproduct. These rules are enforced by the Texas Commission on Environmental Quality (TCEQ).

3Class III Waste Disposal ceased as of April, 1999, when the 2C and 3C pits were reclaimed. Reuse in A Mine Area continues.
Attachment B
## WORKING DRAFT 3 - COAL COMBUSTION ASH PRODUCTS

<table>
<thead>
<tr>
<th>BENEFICIAL USES</th>
<th>INDUSTRIAL STANDARDS</th>
<th>ENVIRONMENTAL AND PRACTICAL BENEFITS</th>
<th>REGULATORY SAFETY NET</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ON-SITE CONSTRUCTION APPLICATIONS</strong>&lt;br&gt;CCA is used to replace cement, sand and aggregate in various grout/concrete projects on site including:&lt;br&gt;- Equipment pads&lt;br&gt;- Foundations&lt;br&gt;- Grouted rock rip-rap spillways&lt;br&gt;- Bricks&lt;br&gt;- Asphallic concrete</td>
<td>By reference, Transportation Department Quality Control Standards as well as ASTM Standards</td>
<td>CCA exhibits pozzalanic properties which make it an effective substitute for cement in certain concrete and grout applications, with the following environmental benefits:&lt;br&gt;- Conservation of energy &amp; materials. The process of cement uses significant energy and raw materials and substituting CCA helps conserve these resources.&lt;br&gt;- Reduced CO2 Emissions. Every ton of CCA substituted for cement avoids 1 ton in CO2 emissions which would have been generated in the production of the cement.</td>
<td>State &amp; Federal Requirements:&lt;br&gt;- Surface Water (NPDES)&lt;br&gt;- Clean Air Act&lt;br&gt;- Superfund</td>
</tr>
<tr>
<td><strong>SOIL STABILIZATION</strong>&lt;br&gt;CCAs are used for soil stabilization to reduce the shrink and swell factors as water either evaporates from the soil or infiltrates into the soil.</td>
<td>By reference, Transportation Department Quality Control Standards as well as ASTM Standards</td>
<td>One example of soil stabilization is to mix CCA with soils underlying a road in lieu of lime and concrete. By doing so, the plasticity index is reduced, maintenance requirements are decreased and the life of the road is extended. The effective substitution of CCA for lime and cement component of concrete provides environmental benefits, as follows:&lt;br&gt;- Conservation of energy &amp; materials. The process of cement uses significant energy and raw materials and substituting CCA helps conserve these resources.&lt;br&gt;- Reduced CO2 Emissions. Every ton of CCA substituted for cement avoids 1 ton in CO2 emissions which would have been generated in the production of the cement.</td>
<td>State &amp; Federal Requirements:&lt;br&gt;- Surface Water (NPDES)&lt;br&gt;- Clean Air Act&lt;br&gt;- Superfund</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BENEFICIAL USES</th>
<th>INDUSTRIAL STANDARDS</th>
<th>ENVIRONMENTAL AND PRACTICAL BENEFITS</th>
<th>REGULATORY SAFETY NET</th>
</tr>
</thead>
</table>
| Soil Amendment / Acid Mine Drainage | See Also, Draft ASTM Standard for CCA Used as Soil Amendment and U.S. Department of Agriculture, Natural Resources Conservation Service Soil Survey Documents | The CCAs are a substitute for agricultural lime, which would typically be relied upon from off-site sources. The effective substitution of CCA for lime and cement component of concrete provides environmental benefits, as follows:  
  - Conservation of energy & materials. The process of cement uses significant energy and raw materials and substituting CCA helps conserve these resources.  
  - Reduced CO2 Emissions. Every ton of CCA substituted for cement avoid 1 ton in CO2 emissions which would have been generated in the production of the cement.  
In addition to the environmental benefits realized from not relying upon off-site agricultural lime to accomplish the same purpose, the use of CCAs as a soil amendment to neutralize acidic soils has been a critical component to Acid Mine Drainage projects in the Eastern U.S. and effectively prevents future acid mine problems through its use in the reclamation process at sites in the Western U.S. | State & Federal Requirements:  
  - Surface Water (NPDES)  
  - Clean Air Act  
  - Superfund |

-2-
## WORKING DRAFT 3 - COAL COMBUSTION ASH PRODUCTS

<table>
<thead>
<tr>
<th>BENEFICIAL USES</th>
<th>INDUSTRIAL STANDARDS</th>
<th>ENVIRONMENTAL AND PRACTICAL BENEFITS</th>
<th>REGULATORY SAFETY NET</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structural Fill / Compaction</strong></td>
<td>Engineering Standards</td>
<td>CCA materials replace soils, aggregate and cement materials routinely used as construction fill material (for structural support) and the cement or grout materials which would be injected into underground mines to prevent subsidence. In the absence of CCA materials, these materials would be excavated (either on or off site), processed to meet the engineering specifications and hauled to the mining site.</td>
<td>State &amp; Federal Requirements:</td>
</tr>
<tr>
<td><em>(To fix underground subsidence)</em></td>
<td>By reference, Transportation Department Quality Control Standards as well as ASTM Standards</td>
<td><strong>The effective substitution of CCA in place of soils, aggregate and cement provides several environmental benefits, as follows:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CCA As are used for construction fill material, including:</strong></td>
<td></td>
<td>- <strong>Land / Habitat Conservation.</strong> Less land would be disturbed to excavate / extract the clay and aggregate. As a result more ecologically valuable habitat remains undisturbed.</td>
<td></td>
</tr>
<tr>
<td>- structural fills as a substitute for aggregate / soil</td>
<td></td>
<td>- <strong>Reduced VOC and PM Emissions.</strong> The use of CCA, (which is usually available from the power plant on-site or close to the mine site), will reduce the distance required to haul the clays, limestone rocks and aggregate materials from off site and will eliminate the additional excavation (and therein the use of heavy equipment) of these materials from on site, reducing the emissions associated with these activities. Also for some operations, the same trucks are used not only to haul coal or lignite to the power plant, but also for the reverse trip to haul CCA from the power plant to the mine area. Diesel truck emissions are reduced by this efficient use of vehicles.</td>
<td></td>
</tr>
<tr>
<td>- injection into underground mines, where coal or lignite has been removed, in order to minimize the occurrence of subsidence</td>
<td></td>
<td>- <strong>Reduced Noise &amp; Improved Safety.</strong> The reduction in driving distances for the diesel haul trucks and the reduced operations of heavy equipment also reduces the noise / potential safety issues associated with blasting, extracting, crushing, sizing, and hauling new clays and rocks for use in roads.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <strong>Conservation of energy &amp; materials.</strong> The process of cement uses significant energy and raw materials and substituting CCA helps conserve these resources.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <strong>Reduced CO2 Emissions.</strong> Every ton of CCA substituted for cement avoid 1 ton in CO2 emissions which would have been generated in the production of the cement.</td>
<td></td>
</tr>
</tbody>
</table>

- Groundwater (SMCRA)
- Surface Water (NPDES) (SMCRA)
- Air (CAA)
- Waste (RCRA)
- Clean-up (CERCLA)
<table>
<thead>
<tr>
<th>BENEFICIAL USES</th>
<th>INDUSTRIAL STANDARDS</th>
<th>ENVIRONMENTAL AND PRACTICAL BENEFITS</th>
<th>REGULATORY SAFETY NET</th>
</tr>
</thead>
</table>
| RAMP ADVANCEMENT        | 30 United States Code Sections 1201-1309b (Surface Mining Control & Reclamation Act [SMCRA]) Implemented by Detailed Regulations and Engineering / Design Review and Approval Implemented at State Level and Inspected by Office of Surface Mining (OSM) and State Agencies | Using CCAs for ramp construction provides increased operational flexibility as well as minimizing the need to disturb additional ground at the end of the project. In addition, surfacing the ramps with CCAs provides the necessary traction to efficiently access the pits during inclement weather conditions, i.e., slippery, wet, and/or frozen. The CCAs also provide a good surface for equipment required to operate on roads located on the pit floor (effective as structural fill). The effective substitution of CCA in place of soils provides several environmental benefits, as follows:  
- **Land / Habitat Conservation**. Less land would be disturbed to excavate / extract the soils. As a result, more ecologically valuable habitat remains undisturbed.  
- **Reduced VOC and PM Emissions**. The use of CCA, which is usually available from the power plant on-site or close to the mine site, will reduce the distance required to haul the soils from off-site and will eliminate the additional excavation (and therein, the use of heavy equipment) of these materials from on-site, reducing the emissions associated with these activities. Also, for some operations, the same trucks are used not only to haul coal or lignite to the power plant, but also for the reverse trip to haul CCA from the power plant to the mine area. Diesel truck emissions are reduced by such efficient use of vehicles.  
- **Reduced Noise & Improved Safety**. The reduction in driving distances for the diesel haul trucks and the reduced operations of heavy equipment also reduces the noise / potential safety issues associated with the excavation and transportation of the soils. | State & Federal Requirements:  
- Groundwater (SMCRA)  
- Surface Water (NPDES) (SMCRA)  
- Air (CAA)  
- Waste (RCRA)  
- Clean-up (CERCLA) |
### BENEFICIAL USES

**Achieving Original Contour (AOC)**
- Pits
- Final Pits
- Abandoned Mine Land (AML) Projects

CCAs are used in reclamation of pits, final pits and AML projects. It is used selectively in areas where there are low volumes of available spoil material and in order to minimize additional land disturbance (extraction of rock and/or soils for the purpose of refilling pit areas.)

### INDUSTRIAL STANDARDS

- 30 United States Code Sections 1201-1309b (Surface Mining Control & Reclamation Act [SMCRA])
- Implemented by Detailed Regulations and Engineering/Design Review and Approval Implemented at State Level and Inspected by Office of Surface Mining (OSM) and State Agencies
- See Also, Draft ASTM Standard for CCA Applications at Mine Sites

### ENVIRONMENTAL AND PRACTICAL BENEFITS

The use of CCA in place of soils/overburden spoils provides several environmental benefits, as follows:

- **Land / Habitat Conservation.** Less land would be disturbed to excavate/extract the soils. As a result, more ecologically valuable habitat remains undisturbed.
- **Reduced VOC and PM Emissions.** The use of CCA, which is usually available from the power plant on-site or close to the mine site, will reduce the distance required to haul the soils from off-site and will eliminate the additional excavation (and therein the use of heavy equipment) of these materials from on-site, reducing the emissions associated with these activities. Also for some operations, the same trucks are used not only to haul coal or lignite to the power plant but also for the reverse trip to haul CCA from the power plant to the mine area. Diesel truck emissions are reduced by such efficient use of vehicles.
- **Reduced Noise & Improved Safety.** The reduction in driving distances for the diesel haul trucks and the reduced operation of heavy equipment also reduces the noise/potential safety issues associated with the excavation and transportation of the soils.

In addition, the use of CCAs to assist in achieving AOC provides a critical additional volume of material that enhances AOC activities in several ways:

1) Provides alternative source of fill when there are shortages of overburden (spoil) available for reclamation purposes in the immediate vicinity of the pit being reclaimed.

2) Allows operators to lessen steeper slopes in areas where low volumes of available spoil material typically result in steeper post-mine slopes and create slope diversity and enhances post-mine contours while maintaining compliance with the regulatory permitting requirements. [Typically in active mine areas, CCAs are placed in pits at depth below the approved topsoil and subsoil depth increments.]

3) Because of 1) and 2) above, may reduce landowner concerns at the time of reclamation performance bond release by improving the attractiveness of land features created during the reclamation process.
Attachment C
Melvin B. Hodgkiss, Director  
Surface Mining and Reclamation Division  
Railroad Commission of Texas  
Post Office Box 12967  
Austin, Texas 78711-2967

Dear Mr. Hodgkiss:

The Mid-Continent Regional Coordinating Center and my office have completed our review of the comments received in response to our February 3, 2004, and March 3, 2004, Federal Register notices announcing receipt of your December 9, 2003, Regulatory Program amendment (69 FR 5102) and the comments received at the March 1, 2004, public hearing conducted in Del Valle, Texas (Administrative Record Nos. TX-656.05, TX-656.29, and TX-656.31, State Amendment Tracking System No. TX-051-FOR).

After reviewing public comments and the policy and procedures used by other States for disposal of coal combustion by-products, we determined that the enclosed list of concerns needs to be addressed either in your regulations or by a policy document referenced in your regulations.

Please advise me within 30 days of this letter whether you want to address these concerns before we proceed to a final decision on the amendment package. If you want to discuss the concerns with OSM or if you have any questions, contact me at (918) 581-6431, extension 23, or Dwight Thomas at extension 24. You may also reach me by e-mail at mwolfrom@osmre.gov.

Sincerely,

Michael C. Wolfrom, Director  
Tulsa Filed Office

Enclosure  
cc: Charles E. Sandberg, MCRCC  
Knoxville Field Solicitor's Office
OSM’s policy is that coal combustion by-products disposal at a mine site is not precluded so long as such disposal is consistent with the environmental protection standards of SMCRA, its implementing regulations, and Federal and State solid waste disposal requirements. After reviewing the public comments and the policy and procedures used by other States for disposal of coal combustion by-products, we determined that the following concerns need to be addressed by Texas either in its regulations or by a policy document referenced in its regulations.

1. **Air Pollution Control Plan** – 30 CFR 780.15 and 816.95 [16 TAC §§12.143, 12.379, and 12.389]

Texas needs to clarify that the fugitive dust control practices in the air pollution control plan will specifically address the coal combustion by-products transportation and disposal operations and the coal combustion products transportation and use.

2. **Hydrologic Information** – 30 CFR 780.21 [16 TAC §12.146]

Texas needs to clarify that the probable hydrologic consequences analysis and hydrologic reclamation plan in the permit application and the cumulative hydrologic impact assessment prepared by Texas will specifically address the coal combustion by-products disposal operations and coal combustion products use, including the probability of adverse impacts on the hydrologic balance, contamination of surface- or ground-water supplies, and the time for manifestation of impacts to surface- or ground-water supplies. This should include a ground-water monitoring plan and surface-water monitoring plan that address the monitoring of potential leachable parameters that are normally associated with coal combustion by-products, such as arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, boron, sulfate, vanadium, nickel, zinc, molybdenum, and manganese (Murarka, Environmental Performance of CCPs, Proceedings of Coal Combustion By-Products and Western Coal Mines: A Technical Interactive Forum, p.p. 231-234, Edited by Vorics & Throgmorton, 2002).


The definition of “Coal combustion by-products” at §12.3(33) provides that “where the disposal of coal combustion by-products is not proposed to result in achieving approximate original contour within the life of the mining project, the disposal area shall be removed from the Commission’s mining permit area . . . .” Neither the definition nor other provisions in the proposed rule specify how the removal of the disposal area is to be accomplished. Texas needs to clarify in its regulations or in a policy document the procedures for removing a coal combustion by-products disposal area from the Commission’s mining permit area and returning complete jurisdiction to the Texas Commission on Environmental Quality (TCEQ). Texas also needs to clarify what “within the life of the mining project” means.
Would this portion of the permit area be released as an industrial/commercial land use and then be regulated by TCEQ under the Texas Solid Waste Program? If so, how would this be accomplished? For example, Texas would need to consider the requirements in its rules at 16 TAC §§12.312 and 12.313 concerning bond release; §12.395(b)(4) concerning Revegetation standards for areas to be developed for industrial, commercial, or residential use; and §12.399(c) concerning alternative land uses. Texas would also need to consider the requirements in its rules at 16 TAC §12.226 concerning permit revisions, §12.400 concerning access road(s) to the disposal area, and §§12.505 and 12.506 concerning topsoil and subsoil to ensure that sufficient topsoil and subsoil will be set aside to spread on the disposal areas upon site closure to ensure a good vegetative cover to provide long term site stability.

The definition of “Coal combustion by-products” at §12.3(33) also provides that when the disposal area is removed from the permit, “all ancillary features (e.g. sediment control structures, roads, and other infrastructure) associated with the disposal operations shall be considered mining-related features which the permittee may retain within the Commission’s mining permit for the life of the reclamation project until final bond release.” Texas needs to clarify that if these roads and structures are only being used for active solid waste disposal operations and the surrounding permit area has been reclaimed, they will be released as a part of the coal combustion by-products disposal area that was removed from the permit.

For your information, we are attaching the current policy document of the North Dakota program for the release of mined acreage used for the disposal of ash, the current policy documents used by Illinois and the OSM Western Region for the beneficial use and disposal of coal combustion by-products, and the current regulations used by Kentucky for coal combustion by-products.


Texas needs to clarify what it will require at §§12.583 and 12.550 concerning contemporaneous reclamation when considering an operator’s request for additional time to conduct rough backfilling and grading to allow for the use of coal combustion products or the disposal of coal combustion by-products.

5. **16 TAC §12.3(34) – Definition of Coal Combustion Products.**

Since the use of coal combustion products at a permitted mining area will be considered a mining-related activity, Texas should clarify how it will determine which of the identified coal combustion products (fly ash, bottom ash, fluidized bed combustion ash, and flue gas desulfurization solids or sludge) will be used for the specific purposes listed in §12.3(34)(A) through (G). For example, will paragraphs (A) and (B) concerning roads be limited to the use of bottom ash? Bottom ash is the only product that TCEQ ever approved in its letter authorizations for roads and TCEQ limited its approval of fly ash to disposal in mine pits and fill. What type of demonstrations must the operators provide to aid in your determinations?

By policy OSM views the disposal of coal combustion by-products as disposal of noncoal mine wastes. Texas needs to clarify in its regulations or a policy document that it will require disposal operations to adhere to Texas' noncoal mine wastes disposal regulations as well as any special and/or additional requirements that site-specific conditions may require.

7. **Backfilling and Grading — 30 CFR 816.102 (a) and (b) [16 TAC §§12.384(a) — 12.385]**

The Federal regulation at 30 CFR 816.102(a)(1) requires that disturbed areas be backfilled and graded to achieve the approximate original contour (AOC) with certain limited exceptions. The Federal regulations at 30 CFR 816.102(b) require that spoil, except excess spoil disposed of in accordance with 30 CFR 816.71 through 816.74, shall be returned to the mined-out area. It is not clear why coal combustion products fill and coal combustion by-products disposal is needed to achieve AOC at the typical lignite mine in Texas. Therefore, Texas needs to clarify that it will not allow coal combustion products to be used as fill or coal combustion by-products to be disposed of in those mined-out areas where spoil would be displaced and have to be disposed of as excess spoil.

8. **Recordkeeping and Annual Reporting**

It does not appear that the proposal addresses any record keeping requirements. Will the generators who ship coal combustion by-products to the mining areas for disposal be required to comply with applicable TCEQ regulations at 30 TAC §335.9 (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators)? Will Texas require the operator to include information in the operation plan and/or reclamation plan on the locations for the coal combustion by-products disposal operations and quantities to be disposed and the locations and quantities of coal combustion products to be used?