

SECTION 51

RECLAMATION SCHEDULE

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SECTION 51

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LIST OF EXHIBITS

EXHIBIT NUMBER	EXHIBIT TITLE
51.2-1	Bond Release Areas

SECTION 51

RECLAMATION SCHEDULE

LIST OF REVISIONS DURING PERMIT TERM

REV.		DATE
NUMBER	REVISION DESCRIPTION	APPROVED

SECTION 51 RECLAMATION SCHEDULE

Navajo Transitional Energy Company (NTEC) is committed to the successful reclamation of all areas disturbed during mining and related activities at the No Name Permit (NNP). Reclamation operations, including backfilling, grading, topdressing redistribution, and revegetation practices, are described in detail in the reclamation plan (Part 5) of this permit application package. This section references information contained in the permit term disturbance exhibits (Exhibit 20.1-1 and Exhibit 20.1-2), the anticipated reclamation blocks (Exhibit 34.2-2), and the final surface configuration (FSC) (Exhibit 34.1-1 and Exhibit 34.1-2) to address reclamation sequencing. The anticipated disturbance and reclamation dates for topdressing stockpiles, roads, and impoundments are provided in Section 22 Support Facilities, Section 23 Roads, and Section 26 Drainage Control Plan, respectively.

51.1 Reclamation Schedule

NTEC has prepared a detailed permit term and projected life-of-mine disturbance exhibit for NNP (Exhibit 20.1-1 and Exhibit 20.1-2). Those exhibits allow the reader to visualize the sequence and timing of mining disturbances for the life of mine. In Section 34 Post-Reclamation Topography, NTEC evaluated the FSC (Exhibits 34.1-1) and a modeled post-mining topography. The reclamation sequence for the FSC will achieve mass balance while maximizing contemporaneous regrade between the pit ramps. The combination of the mine disturbance and reclamation exhibits provides a general reclamation sequence that will allow NTEC to reclaim the NNP area as contemporaneously as practicable.

NTEC is implementing a fluvial geomorphic approach to reclamation at NNP. This approach uses site-specific fluvial geomorphic data in order to develop a FSC that generally mimics the natural landscape. This reclamation approach will create an erosionally stable surface by creating land forms that resemble those found in the natural or pre-mining environment. The post-mining reclamation surface will tie into specific drainage profiles and elevations to ensure correct hydrologic balance within the disturbed areas, as well as tying into undisturbed drainages upstream and downstream. The efforts required to establish the appropriate drainage profiles are controlled by the Pinabete Arroyo reclamation. On the western side of the reconstructed Pinabete Arroyo, reclamation will start in the uplands of the drainage basins and progress downstream to the designed confluence with the reconstructed arroyo. These upper drainages will also cross the pit ramps, which are required to remain open until the final closure of the No Name pit.

During the first permit term, years 1 through 5, NTEC will be constructing all of the support facilities, structures, and equipment necessary to initiate mining. As construction of these features nears completion, the production focus will shift to creating the mining pit boxcuts and the first mining striplines. With the construction of these long-term structures and facilities, there will be negligible area available for primary regrading and other reclamation activities. In addition, excess cut material from boxcuts will be required for fill in future reclamation blocks to the east. Consequently, reclamation activities occurring within the

first two permit terms will be limited to primary regrading. Any final reclamation during the first two permit terms will largely be limited to incidental disturbances associated with temporary or support facility construction. NTEC will initiate primary regrading once logical, operationally feasible blocks become available.

An area will be operationally feasible if it is a sufficient distance away from the active mining areas and of sufficient size to allow for the safe operation of reclamation equipment. This practice minimizes the risk of interaction between mining and reclamation operations and maximizes the safety of NTEC's workforce. Lastly, mining activities must have ceased in the proposed reclamation area. Reclaimed areas may need to be redisturbed to facilitate the safe operation of mining and reclamation activities. These areas will be reclaimed once again after the disturbance is no longer needed.

It is NTEC's intent to reclaim all areas disturbed by mining activities as contemporaneously as practicable. The timing of reclamation can be affected by the following factors:

1. Ramp backfill to maintain haulage ramps. As the pit progresses, ramps used for coal mining are backfilled. The material balance for FSC elevation is located adjacent to the ramps. The entire ramp cannot be backfilled to its final FSC elevation due to the operational need to maintain a ramp of a set grade down to the bottom coal seam for coal haulage. The source for this ramp backfill material typically comes from the ungraded spoil material surrounding the ramps. As a result, areas around ramps are regraded less contemporaneously as compared to other regrade areas.
2. Final pit backfill. A buffer of ungraded spoil approximately 4,500 ft in width, measured from the centerline of the final pit, is required to provide enough material to backfill the final pit to the FSC elevation.
3. Drainage channel construction. The reestablishment of post-mining drainages to the approved design requires that some areas not be regraded contemporaneously. Post-mining drainages will be reestablished once the post-mining watershed area meets the grades and elevations described in the FSC.
4. Maximizing coal recovery. In some areas, the land must not be regraded contemporaneously to facilitate future coal recovery in adjacent areas.
5. Boxcut spoils are often left ungraded until near the end of the mine life, as they represent a source of backfill material that may be required to complete reclamation to the final surface design.
6. Long-term facilities, such as haul roads, access roads, conveyors, and offices and shops would be reclaimed during the final reclamation phase

51.2 Reclamation Bond Release Phases

NTEC will apply for phased bond release in logical blocks that are not expected to be affected by future mining and reclamation disturbance. The logical blocks will be of sufficient size to allow for an adequate representation of the reclaimed area. NTEC has found pursuing phase bond release in these logical blocks, rather than a small-area segregated approach, to be practical from an operational perspective. Reclamation areas for which NTEC has received phase bond release approvals are presented on Exhibit 51.2-1. The Office of Surface Mining Reclamation and Enforcement will review and approve all phase bond release applications.

51.2.1 Phase I Bond Release

Areas within the NNP area which have been backfilled and graded will be eligible for Phase I bond release. These areas may include lands on which topdressing has been redistributed. Areas for which NTEC has received Phase I bond release approvals are described in Table 51.2-1 and presented on Exhibit 51.2-1.

51.2.2 Phase II Bond Release

Areas within the NNP area which have successfully been revegetated will be eligible for Phase II bond release. Reclaimed areas that contribute suspended solids to streamflow or runoff to streams and drainages outside of the permit area equal to or less than the applicable standards will be eligible for Phase II bond release. NTEC may elect to apply for Phase II bond release concurrently with Phase III bond release applications. Areas for which NTEC has received Phase II bond release approvals are described in Table 51.2-2 and presented on Exhibit 51.2-1.

51.2.3 Phase III Bond Release

Areas within the NNP area where NTEC has successfully completed mining and reclamation activities and achieved the revegetation success criteria (Section 37) will be eligible for Phase III bond release. The revegetation success criteria must be achieved in at least two of the last four years of the 10-year responsibility period. Areas for which NTEC has received approval for Phase III bond release are described in Table 51.2-3 and presented on Exhibit 51.2-1.

Table 51.1-1 Backfilling and Grading Schedule (Acres)

Watersheds									
Calendar Year (January - December)	Yazzie/ Hosteen**	North/ Central Barber**	Lowe**	Cottonwood (Dixon)**	Cottonwood/ Pinabete (Gilmore)	Pinabete (No Name)	No Name (No Name)	Brimhall/Chaco (No Name)	Infrastructure
* 2021	1,178								
* 2022		1,012							
* 2023									
* 2024									
* 2025									
* 2026		1,253							
* 2027					2,417				
* 2028									
* 2029				2,119					
* 2030									
* 2031									
* 2032									
* 2033									
* 2034									
* 2035									
* 2036							323		
2036-2041									
2041-2046									
2046-2051									
2051-2056									
2056-2061									
2061-2066									
2066-2071									
2071-2076									
2076-2081									
2081-2086									
2086-2091									
2091-2096									
2096-2101									
2101-2106									
2106-2111									
2111-2116									
2116-2121									
2121-2126									
2126-2131									
2131-2135									
* 2136								316	
Total by Watershed	1,178	1,012	1,253	2,119	2,417	2,800	2,999	3,242	316

*See Annual Regrade Map for Yearly Target
** Watershed boundaries can be found in Section 34 Exhibits

