for the "WHEATFIELDS BORROW PIT" WHEATFIELDS, ARIZONA

Prepared for:

Wheatfields Borrow Pit Lease and Operations

Navajo Nation and the U.S. DOI Bureau of Indian Affairs

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1.0 Introduction

Navajo Engineering and Construction Authority (NECA) has applied for a mineral lease for a period of five-years for road construction projects to produce borrow material from the proposed Wheatfields Borrow Pit source located within the Tsaile/Wheatfields Chapter Boundary - Apache County, Arizona.

In the Fall of 2019, NECA was awarded the N12 roadway project. In general, the scope of work consists of reconstructing 10.68 miles of Navajo Route N12 from Tsaile, Arizona to Wheatfields, Arizona. Material from the Wheatfields Borrow Pit will be used for the construction of the N12 roadway subgrade and be known as "unclassified borrow" material. The reconstruction project will commence in the winter of 2020 and the excavation of the borrow material will begin as soon as the mineral lease is approved. Once approved, NECA intends to use the borrow pit for approximately 12 months. Additional projects involving the Wheatfields Borrow Pit are not currently planned.

Access to the borrow pit is an existing dirt turnoff from Highway N12, which currently provides access to one residence (see Appendix N). The borrow material exists within a terrace of unconsolidated alluvial deposits with traces of sandstone and silty sand. The area will accommodate excavation of borrow material. Processing of this material is not anticipated. The material will be used exclusively as borrow material for subgrade establishment (fill) on the N12 project.

All water for dust control will be obtained through official permit(s) WUP No. 20.0065 and No. 20.0066 from the Navajo Nation at locations on Tsaile Creek - Bridge 505 & 504 (see Appendix B). NECA estimates to use approximately 8000 gallons per day. Rehabilitation and reclamation measures will be initiated following the completion of the N12 roadway project.

All applicable Navajo Nation and Federal laws or regulations will be observed throughout the life of this mine and the associated lease.

2.0 Purpose of the Mining and Reclamation Plan

Federal guidelines under the Indian Mineral Leasing Act (IMLA) govern mining activities on Indian reservations and lands held in Federal trust. An approved mining and reclamation plan are required before a mineral lease can be approved by the Bureau of Indian Affairs for the Secretary of the Interior. Approval of a Mining and Reclamation Plan for a mineral lease on Federal trust lands is delegated to the Mining Supervisor for the Department of Interior. The Bureau of Land Management (BLM) is tasked with being the Mining Supervisor, or Regional Mining Supervisor for the U.S. Department of the Interior.

The general intent of a mining plan is to better protect the Indian mineral owner, the resource being mined, the environment, the community and the workers engaged in activities at this site. The initial borrow material mined from the Wheatfields Borrow Pit will be used as unclassified borrow material for the N12 roadway improvement project. No screening or other processing is currently expected to be performed on the material.

This document is titled a "Mining and Reclamation Plan" and is the equivalent of a mining plan of operations, or mine plan, as described in Title 25 CFR 216.7.

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The Bureau of Indian Affairs (BIA) administers leases on Federal trust lands. Under Title 25 CFR, Parts 211, 216, and 225, operations at the Wheatfields Borrow Pit are handled as a mineral lease. The Bureau of Land Management (BLM) is present in support of the BIA as the mining supervisor for the Department of the Interior. BLM's responsibilities include inspection, enforcement and production verification. In addition to safety regulations (noted below), NECA will follow all applicable Navajo Nation and Federal regulations that may apply. This Mining and Reclamation Plan, when approved, will be adopted as the formal rules of operation for this borrow pit and any deviation may be considered in noncompliance with the terms of the approved lease.

This mineral lease and its associated "Wheatfields Borrow Pit" Mining and Reclamation Plan have been developed specifically for the N12 Project. There are not currently any other projects in need of the borrow material found at that location. Following completion of the N12 project and planned reclamation of the pit, the Mining & Reclamation Plan will remain in effect for the duration of the mineral lease. Should new projects or customers be identified, production of additional borrow material and reclamation would follow and adhere to this Plan, as approved. Minor modifications may be expected, such as the amount of additional material or the exact location of the scale and administration facilities. Provided the function and use of the site are consistent with production of borrow material and the stipulations of this plan, new approvals should not be expected during the life of the mineral lease.

3.0 Description of Pit

The development of the Wheatfields Borrow Pit source of material will be from 4.98 acres of Federal trust lands within the Navajo Nation (please see Appendix D). The Legal Description is as follows: Section 28, Township 33 North and Range 30 East, Gila and Salt River Meridian (please see Appendix C).

The estimated quantity of borrow material needed for the N12 project is approximately 45,202 cubic yards (67,125 short tons {please see Appendix Q}). Excavation and surface disturbance for the N12 project would be completed within one (1) year of approval (please see Section 11.0, Section 20.0 and Appendix F for NECA's Excavation Process and the Wheatfields Borrow Pit timeline).

The area of the proposed Wheatfields Borrow Pit is located on the west flank of the Defiance Uplift (anticline) and within the Canyon De Chelly watershed. Runoff from this site is generally expected to flow to the south into Wheatfields Creek. This is part of the greater San Juan River drainage basin.

Due to the nature of the soils at the site, the operator does not anticipate encountering an oversized boulder resource. No screening of material is expected at the proposed site.

The truck hauling route into the Wheatfields Borrow Pit has a radius of approximately 392 feet (please see Appendix O). Traffic control is discussed in Section 15.0.

A Frontier communication pedestal sits on the southwest corner of the proposed Wheatfields Borrow Pit. The communication line(s) run across the road from the Wheatfields Chapter to the residence on the north side of the proposed pit and parallel with Highway N12. Frontier has been notified about the proposed Wheatfields Borrow Pit location. NECA will protect the phone pedestal with a fence and construct a berm around the obstacle (please see Appendix O).

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4.0 Location

The Wheatfields Borrow Pit is on the north side of Highway N12 across from the Wheatfields Chapter house and is on the west side of the Highway N12/CR444 Intersection. The proposed Lease area is 4.98 acres, located within the Navajo Nation (please see Appendix C). The proposed Wheatfields Borrow Pit is located on the USGS Lower Wheatfields Quadrangle, Arizona - Apache County, 7.5 Minute Series (please see Appendix A).

5.0 Land Survey Plat and Legal Description

The legal description of the proposed Wheatfields Borrow Pit is: Section 28, Township 33 North and Range 30 East, Gila and Salt River Meridian (please see Appendix C).

6.0 Chapter Resolution

The proposed Wheatfields Borrow Pit would be located on Navajo Partition Land (NPL), within the Wheatfields Chapter. NECA has acquired an approved Chapter resolution and associated grazing permittee(s) consent to use the Wheatfields Borrow Pit (please see Appendix R)

7.0 Conformance with the Land Use Plan

The proposed borrow pit is located on Navajo Nation trust land. The proposed lease area is undeveloped and there are no current land use plans for the area. There are no existing sheep camps on the proposed property, nor are there any improvements. According to the local chapter official there are no plans to utilize this parcel for other purposes.

8.0 Training & Safety

A comprehensive safety and training plan for raw material extraction, per OSHA CFR 1910 & 1926 (Construction Training, Safety and Health), is described in the NECA Safety Policy Manual. This Manual applies to all activity at the Wheatfields Borrow Pit (please see Appendices H & I). All OSHA requirements and applicable safety regulations will be met prior to and during excavation of borrow material from the Wheatfields Borrow Pit.

NECA's Safety Department holds in-house employee training (please see Appendix G), which includes information on National Pollutant Discharges Elimination System (NPDES) permitting. NECA's internal safety training also includes an Occupational Safety and Health Administration (OSHA) 10 & 30 hour "Outreach in Construction" class and also a 10 & 30 hour "Outreach for General Industry" class. Those individuals who participate in the Wheatfields Borrow Pit excavation operation will be required to attend the following classes:

- First Aid, CPR and AED
- OSHA 10 & 30 hour "Outreach in Construction"
- OSHA 10 & 30 "Outreach for General Industry"
- Personal Protection Equipment (PPE). NECA's PPE training is designed to inform and educate employees and subcontractors about their responsibilities for working in a safe environment. All employees and contractors will receive general safety, site-specific hazard training and will be required to wear the appropriate PPE while onsite.

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As per *CPL 02-00-042, Interagency Agreement Between the Mine Safety and Health Administration and the Occupational Safety & Health Administration U.S. Department of labor* (see attachment in Appendix H – Section A-2, Item #7), the Navajo Engineering & Construction Authority (NECA) will adhere to the Occupational Safety & Health Administration guidelines.

"Borrow Pits" are subject to OSHA jurisdiction except those borrow pits located on mine property or related to mining. (For example, a borrow pit used to build a road or construct a surface facility on mine property is subject to OSHA jurisdiction). Borrow pits means an area of land where the overburden, consisting of unconsolidated rock, glacial debris, or other earth material over lying bedrock is extracted from the surface. Extraction occurs on a one-time only basis or only intermittently as need occurs, for use as fill materials by the extracting party in the form in which it is extracted. No milling is involved, except for the use of a scalping screen to remove large rocks, wood and trash. The material is used by the extracting party more for its bulk than its intrinsic qualities on land which is relatively near the borrow pit.

The operational service area for NECA's equipment will be at the N12 project construction yard (see Appendix D).

The Emergency Response Plan will be posted at the N12 Project Administration Office and at the scale house (please see Appendix J). Prior to the beginning of each work shift, NECA's Project Superintendent(s) and Foremen will conduct a daily "toolbox meeting" The daily meetings are for discussing safety procedures and the site-specific Job Hazard Analysis (JHA).

9.0 Site Preparation

NECA's command center, or the administration office for this operation will be located southeast of the Wheatfields Chapter House, Arizona (please see Appendix N). This office is responsible for directing the entire N12 project, thus, the development and operation of the Wheatfields Borrow Pit will be under direction of this office while it remains open. Once the N12 project is completed, any operations at the Wheatfields Borrow Pit will be directed from the NECA home office in Shiprock, New Mexico.

The disturbance area of the Wheatfields Borrow Pit (up to 4.98 acres) will be fenced to keep livestock out. Traffic control will be set up prior to developing the Wheatfields Borrow Pit (please see Section 15.0 and Appendix K). The actual area within the proposal Wheatfields Borrow Pit to be disturbed for the N12 project is approximately 1.75 acres, or 35% of the total surface acreage requested. Initial work will be on the northwest side of pit. A dozer will level an area adequate for installation of the scales. A truck traffic circle route will also be established for haul-truck loading (see Appendix O).

Topsoil and vegetation from the entire disturbance area will be removed and stored on the eastern section of the Wheatfields Borrow Pit for post-borrow excavation reclamation (please see Appendix E). The total quantity disturbed, including borrow material and topsoil will be approximately 61,606 cubic yards (CY). Prior to borrow excavation, NECA will berm the inner bank of the pit boundary for safety (please see Appendix E). The berms will be at least mid-axle height of the largest, self-propelled mobile equipment operating within the Wheatfields Borrow Pit area. During active excavation operations, security will be provided 24 hours per day, 7 days a week.

NECA will have one or more portable toilets available at the N12 Wheatfields Chapter Construction Yard, depending on the number of employees and contractors expected onsite. The sanitation facilities, employee parking and equipment fueling area are shown on Appendices E and N.

As outlined in the Storm Water Pollution Prevention Plan (SWPPP), temporary erosion control measures will be installed at the foot of the stockpiles and at other discharge points to prevent movement of soil from the site (please see Appendix D). It is expected that borrow removal and stockpiling will begin immediately following the necessary approvals. The erosion control will remain in place and be monitored/maintained through the duration of lease.

Trees located in the pit area will be removed by the Navajo Nation Forestry Department (NNFD). The NNFD has been notified and recommended staking the boundary of the planned Wheatfields Borrow Pit. NNFD will modify the permitted tree count and correct the already approved N12 project permit. NECA will notify NNFD prior to the start of operations at the Wheatfields Borrow Pit.

10.0 Estimated Reserved and Annual Tonnage to be Excavated

In its' entirety, the Wheatfields Borrow Pit is estimated to produce approximately two hundred thousand (200,000) short tons of recoverable material from the 4.98 acres. The quantity of borrow material to be used for the N12 project is approximately 45,202 CY (67,125 short tons). The estimated total disturbance to mine the 45,202 CY (61,606 CY with topsoil stockpile) of material is anticipated to be 1.75 acres. (please see Appendix E). NECA will use a certified scale to measure by weight and report production in short tons. The scale will be set up on the west side of the Wheatfields Borrow Pit (please see Appendix D). NECA will provide monthly production reports (short tonnage produced) to the Navajo Nation, the Bureau of Land Management Arizona State Office and the U.S. Department of the Interior's Office of Natural Resource Revenue (ONRR). Royalty payments will be made in compliance with the lease, as well as applicable laws and regulations.

11.0 Borrow Excavation Operations

The Navajo Nation Minerals Department, the BIA and the BLM will each be notified as follows:

- Prior to the beginning of site preparation.
- Prior to periods of active excavation.
- At the end of excavation activity for any specific project.
- Prior to initiating reclamation activities.

The hours of operation are expected to be 7:00 am to 5:00 pm (March through October) and 8:00 am to 5:00 pm (November through February). Operations will be active Monday through Friday, until completion of the N12 project.

This facility will be a "borrow pit" as defined in Section 8.7 of the Interagency Agreement between the Mine Safety and Health Administration and the Occupational Safety and Health Administration, both a part of the U.S. Department of Labor. As such, OSHA has by agreement, administrative authority and jurisdiction over safety issues at "borrow pits". The Wheatfields Borrow Pit will adhere to all applicable regulations. Some of the relevant OSHA regulations can be found in Title 29 of the Code of Federal Regulations (CFR), Sections 1910 & 1926. These include: 1910 Subpart E-Exit Routes and Emergency Planning; 1926 subpart E - Personal Protection; 1910 & 1926 Subpart G, C & D - Occupational Health and

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Environmental Control; 1910 Subpart H - Hazardous Materials; 1910 subpart N - Materials storage and Handling; 1926 Subpart O - Motor Vehicles, Mechanized Equipment, and Marine Operations; etc. (See Appendix H.)

The fine-grained silty-sandy loam source material is soft enough to forego drilling and blasting. Drilling and blasting will not be required for production at the Wheatfields Borrow Pit. The excavated borrow material will be developed into stockpiles on the west side of pit using a Caterpillar D8 or D9 Bulldozer, or equivalent (see Appendix E). The dozer used may be equipped with a rake or other specialized implement to loosen the material prior to stockpiling. If needed, an excavator with a 36-inch bucket will be utilized to loosen material. The stockpiles will be located within the N12 roadway right-of-way. The use of this ROW for the reconstruction of N12 is permitted under the NECA contract for this project.

The Wheatfields Borrow Pit excavation is intended to remove raw earthen material, so screening, crushing or other processing is not expected. The use of a coarse grizzly may be needed if wood debris or unwanted material is encountered. NECA has provided a typical schematic cross section of how material will be removed from the site (please see Appendix F). The raw material will be pushed into stockpiles and loaded into belly dump trucks for transport off site.

Upon excavating the usable borrow material from the site, it will be moved onto the 1.68 acre area within the Wheatfields Borrow Pit Lease, but along the N12 Project right-of-way. The area will serve as the stockpiling and load-out area.

NECA expects to start excavating the borrow material in 2020, or as soon as all required permits are approved. There will be a minimum of 4 employees onsite during active excavation operations. NECA personnel onsite will include a dozer operator, loader operator and a scale operator. A water truck driver will be present as needed. Additional personnel onsite may include NECA or contract truck drivers conveying material from the Wheatfields Borrow Pit to the N12 Project. The truck drivers will not be permitted to exit their vehicles within the borrow pit during active operations.

NECA estimates up to 76 loads per day (76 loads x 21 tons per load = 1596.00 short tons), 5 days a week during the first 4 months of operation. NECA's work schedule will switch to 4 days a week, 10 hours a day from early April to the 1st week of October. This schedule will increase the hauling up to approximately 95 loads a day (95 load x 21 tons per load = 1995 short tons). Depending on the N12 project schedule and weather conditions, NECA may use two loaders and operators in the pit for loading-out trucks.

To quantify the borrow material removed from the Wheatfields Borrow Pit, a truck scale will be used within the Lease site. Prior to haul-out operations taking place, the scale will be certified by a qualified individual acceptable to the Navajo Nation. The Bureau of Land Management (BLM) will be notified in advance of the scale certification, allowing a representative to be on site during the process. Before haul trucks are permitted to remove material from the Wheatfields Borrow Pit, Tare Weights will be recorded, and every truck will be weighed before leaving the Pit.

NECA will be excavating the borrow material using a D8 or D9 dozer for ripping and pushing the raw material from the east and south section of pit, moving the material toward the west side of the borrow

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pit for stockpiling with a loader (please see appendix D). It will take approximately 3,778 trucks loads to haul the 67,125 short tons required for the N12 project, based on 21 short tons per load.

The initial borrow excavation will cut 5 feet x 70 feet in depth of raw material from the surface. This will be done in a stair-stepped, or benched fashion (please see Appendix F). The dozer will start on the east side of the disturbance area and work westward, creating a long stockpile along the N12 right-of-way. The existing grade is approximately 3:1; therefore, the slope of the hillside will not exceed 3:1 when the excavation of the borrow material has been completed (please see Appendix D and Appendix F). The borrow material will be loaded into belly or end dump trucks for the N12 project. As borrow excavation progresses from east to west, NECA will maintain and shift erosion control wattles (BMPs) and earthen berms to accommodate the production of borrow material. Maintenance of the earthen berms and BMPs will be an ongoing process to satisfy the OSHA and SWPPP requirements.

12.0 Drilling and Blasting Plan

Drilling, Blasting, Crushing, Screening or Processing shall not occur as part of the borrow excavation operation.

13.0 Equipment List

It is not possible to provide an exact list of the equipment that will be used in the borrow pit operation during the five-year term of the lease; however, the excavation equipment and support vehicles will likely consist of the following types of equipment:

- One (1) or two (2) Cat 938 or 950 Loaders with a bucket capacity of approximately 5 CY, or equivalent.
- Cat D8 or D9 bulldozer, or equivalent.
- International, Kenworth or Freightliner water truck with a capacity of 4,000 gallons (shared with the N12 project)
- Freightliner FL70- Service Truck (once per day for fueling equipment)
- Excavator with a 36" bucket (250, 270 or 300 class), if needed.
- 14G or 140G Motor-Grader, as needed for haul truck access route maintenance.
- Coarse Grizzley, if needed.

Additional equipment may include the following:

- Belly or End-Dump trailer units of 10-25 tons capacity.
- Miscellaneous subcontracted belly-dump haul trucks with an approximate capacity of 21 tons.

14.0 Air Quality and Dust Control

During excavation operations, dust control will be handled by water trucks as listed above in the equipment list. It will take approximately 8,000 gallons of water a day (based on recent historical usage at the "Emma Brown" Borrow Pit, Nazlini, AZ). The pit and access roads requiring dust control are approximately 392 feet in length and 15 feet wide. Water for dust control shall come from nearby sources under official permit (WUP NO. 20.0065 or 20.0066) from the Navajo Nation. The permits in place allow NECA to draw water from Tsaile Creek at Bridge(s) 505 & 504. NECA will use a portable water pump with a load out stand at each location, as permitted by the Navajo Nation Department of Water Resources.

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15.0 Traffic Control

Access to the Wheatfields Borrow Pit is adjacent to BIA/Navajo route N12. Signs will be posted on the existing N12 highway and residential roads, warning the public of heavy equipment and haul trucks (please see Appendix K). The Wheatfields Borrow Pit access road will be graded regularly to allow for haul truck traffic (i.e. semi, belly and end dump trucks) and overall safe access during the borrow excavation operation (please see Appendix E). During the Wheatfields Borrow Pit safety training, employees and associated personnel will be instructed to be courteous to the impacted residents and the public.

NECA estimates using 10 - 25 contracted trucks for hauling borrow material to the N12 project during peak operation. NECA plans to schedule material hauling from the Wheatfields Borrow Pit as soon as all required approvals are in place.

16.0 Solids Waste Contact

No storage of fuel, petroleum or waste products will occur at the Wheatfields Borrow Pit site. NECA will have Fuel storage tanks located at the N12 project construction yard, located on the east side of the Wheatfields Chapter House (please see Appendix N). Fuel needed for the equipment in the Wheatfield Borrow Pit operation will be delivered by a NECA Freightliner FL70 service truck, as required. The NECA service truck will also service equipment onsite (please see Appendix E).

A standard "spill kit" containing absorbent materials, empty containers and a shovel will be maintained at the scale location and on the NECA service truck. Should there be a fuel/oil spill, the contaminated material will be hauled to a licensed landfill by a qualified waste hauler for disposal. Spills of fuel and other petroleum products will be handled according to the standard policies regarding cleanup and disposal of contaminated soils (please see Section 18). Envirotech, located in Farmington, New Mexico is the designated disposal facility.

NECA employees will perform a walkaround at least once a day to pick up trash within the Wheatfields Borrow Pit Lease. An adequately sized trash receptacle will be located near the equipment service or scale area (please see Appendix E).

17.0 Stormwater Plan

Temporary erosion controls will be installed and maintained in accordance with a Stormwater Pollution Prevention Plan (SWPPP) prepared exclusively for the Wheatfields Borrow Pit. NECA has implemented a Multi-Section General Permit (MSGP) to handle stormwater discharge associated with industrial activity for the N12 Project (please see Appendix L). The Wheatfields Borrow Pit is being developed in support of this roadway project and will comply with the MSGP requirements.

18.0 Spill Prevention Control and Countermeasure

In accordance with 40 CFR 112.3 (c), a Spill Prevention Control and Countermeasure Plan (SPCCP) has been developed for the N12 Project. The SPCCP is a Tier 1 Self-Certification Statement that will mitigate the potential for an accidental discharge of oil or waste oil into or upon navigable waters of the U.S. In the unlikelihood of a spill occurrence, this plan is prepared to prevent and minimize the impact of a spill at the facility and to expedite control and cleanup activities. Spills of petroleum products will be handled

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according to NECA's SPCCP policy regarding cleanup and disposal of contaminated soils. The following processes will be implemented to counter potential spills and protect the Wheatfields Borrow Pit:

- NECA's mine operator shall ensure the borrow material will have no contamination.
- NECA will monitor all SWPPP erosion controls and drainages from the borrow area at least every three months or when heavy rain has occurred, for the life of the mineral lease.
- NECA's sanitation facilities, fueling area and all employee parking will be located at the N12 project Wheatfields construction yard (please see Appendix N).

19.0 Reclamation

Reclamation of the Wheatfields Borrow Pit shall commence upon completion of the N12 project. The site will be returned to as nearly as possible to the pre-borrow excavation condition. Natural contours and vegetation will be targeted to minimize erosion. Final reclamation shall be approved by the Navajo Nation. There will not be any slopes steeper than 3-to-1. Disturbed surfaces will be ripped and disced to loosen areas compacted by traffic, then seeded using the "hydraulic method". Final reclamation activities of this borrow pit will occur, as nearly as possible, with N12 Project seeding and finalization work.

The site will be reclaimed generally as described in in Arizona Standard FP-14 - Section 625 - Turf Establishment (please see Appendix M) and will conform to the requirements of the Navajo Nation. The seed mix shall be approved by the Navajo Nation prior to application. Revegetation Services of Mesa, Arizona is expected to be the vendor for the seed mix (the proposed seed mix will be submitted to the Navajo Nation for approval prior to reclamation). No watering will occur for the seed mix planted and the seeds will be allowed to germinate when natural moisture is sufficient to maintain growth. The success of the revegetation will be monitored and assessed at the end of the lease term. An additional assessment will occur at the end of two years following final reclamation of the Wheatfields Borrow Pit. The Navajo Nation Environmental Protection Agency (NNEPA) will perform the final certification and approval of reclamation.

Upon completion of reclamation, the area should be suitable for limited livestock grazing. The traffic control signs will be removed once the reclamation grading and seeding of the Wheatfields Borrow Pit is completed. Should this pit be reopened within the term of the lease, traffic control signs will be reinstalled prior to operations. Reclamation following any re-opening event will follow the same process as any initial reclamation followed.

Prevention of erosion is discussed in the Storm Water Pollution Prevention Plan (SWPPP) as outlined in Section 17. Temporary erosion control measures installed under the SWPPP will be left in place until final approval of reclamation. Dust control on the site will be maintained by water trucks equipped with spray bars.

A mineral lease has been requested for a period of five-years. NECA expects the reclamation of the Wheatfields Borrow Pit to take place upon completion of the N12 project. The Wheatfields Borrow Pit will be seeded when the N12 project is seeded. Once the N12 project is complete, no additional borrow excavation is expected to occur without appropriate notification and approval.

NECA will submit an appropriate Performance Bond, Verification of Coverage, and State of Arizona Contractor's License to the BIA prior to beginning operations at the borrow pit.

Bonding and eventual release of said Bond is a Federal duty administered by the BIA. Final acceptance and approval of reclamation efforts will be determined by the Navajo Nation, the Bureau of Indian Affairs and the Mining Supervisor.

20.0 Wheatfields Borrow Pit Activity Timeline

The following is a general timeline for activity related to development through reclamation of the Wheatfields Borrow Pit:

- Fencing, clearing, establishment of haul-road and removal of topsoil from the Wheatfields Borrow Pit area.
 - 2-3 weeks following the approval of the permit
- Excavation of the borrow material for the N12 project
 - 9 months
- Reclamation of the Wheatfields Borrow Pit
 - o 2 months



Appendix A USGS Lower Quadrangle Map

Wheatfields Borrow Pit Mining & Reclamation Plan



Figure 1. Wheatfields Borrow Excavation Lease Map @ 4.98 Acres

Navajo Engineering & Construction Authority Shiprock, NM

NECA Project No. N12(19-4)1,2 & 4

Wheatfields, AZ USGS Quadrangle Map

Southwest Corner N12 Alignment POB

PLS: NW/4 Section 28 T33N R30E

L&L: 36° 14' 16.1" N 109° 07' 32.7" W

UTM: 668,422 m E 4,011,956 m N

Elev. 7,312' amsl

Southwest Corner N12 Alignment

PLS: NW/4 Section 28 T33N R30E

L&L: 36° 14′ 18.3" N 109° 07′ 36.6" W

UTM: 668,324 m E 4,012,015 m N

Elev. 7,296' amsl

West Corner

PLS: NW/4 Section 28 T33N R30E

L&L: 36° 14' 19.4" N 109° 07' 36.9" W

UTM: 668,315 m E 4,012,054 m N

Elev. 7,311' amsl

Northwest Corner

PLS: NW/4 Section 28 T33N R30E

L&L: 36° 14' 21.1" N 109° 07' 36.3" W

UTM: 668,329 m E 4,012,102 m N

Elev. 7,282' amsl

Northeast Corner

PLS: NW/4 Section 28 T33N R30E

L&L: 36° 14' 20.7" N 109° 07' 31.4" W

UTM: 668,454 m E 4,012,090 m N

Elev. 7,328' amsl

Southeast Corner

PLS: NW/4 Section 28 T33N R30E

L&L: 36° 14' 17.7" N 109° 07' 29.7"W

UTM: 668,495 m E 4,011, 998 m N

Elev. 7,320' amsl

South Corner

PLS: NW/4 Section 28 T33N R30E

L&L: 36° 14' 16.9" N 109° 07' 30.8" W

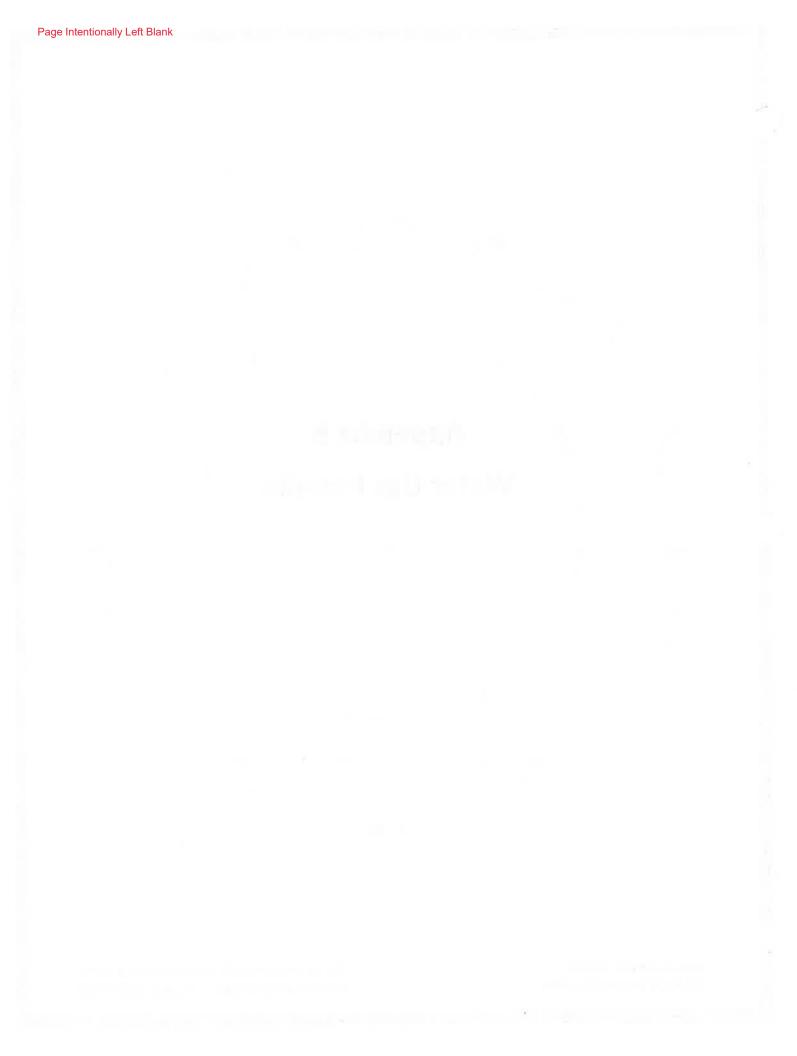
UTM: 668,467 m E 4,011,977 m N

Elev. 7,311' amsl

7

Appendix B Water Use Permits

Wheatfields Borrow Pit Mining & Reclamation Plan



COMPLY w/Navajo
Water Code/TCOB
Rules and Regulations,
SUBMITTAL of
Water Withdrawn
LOAD COUNTS is
REQUIRED.

Department of Water Resources
Technical, Construction and Operations Branch
P.O. Box 678

Fort Deflance, Arizona 86504
Ph. No. (928) 729-4132/Fax No. (928) 729-4421
www.watercode.navalo-nsn.gov

APPROVED

WATER USE PERMIT

WUP NO: 20.006 5

VALID FROM 12/01/2019 to 12/01/2020

NOTE: This permit is valid only upon signature of the Branch Director, Technical, Construction and Operations Branch (TCOB), or Director, Department of Water Resources (DWR) or Division Director, Division of Natural Resources (DNR). Please read Water Use Permit information sheet before completing this form.

	LAST NAME		MBANU NAME
MAILING AD	DRESS: P. O. Box 969	Pharton	MPANT NAME
CITY: Shi		STATE: New Mexico	718 CORE. 87420
Carlo	NAMES OF TAXABLE PARTY OF TAXABLE PARTY.		
	RESS: herman@navajo.net	STATE: New Mexico ZIP CODE: 87420 Berson TELEPHONE NO; 505-210-7036 JO. net A 19 DATE COMPLETED OI 09 2000 Receipt No. Initial MA DENTIFIED WATER SOURCE TO BE USED Stream Name: Tsalle Creek - Bridge 505 Lake/Reservoir Name: Injection Well No: Ogalloris Grazing District: Chapter Code: TSAT NM/New Mexico UT/Utah MK/McKinley SJ/Sam Juan MK/McKinley SJ/Sam Jua	
*******	• • • • • • • • • • • • • • • • • • • •	* * * * * * * * * * * * * * * * * *	******
DATE RECEI	VED: 12 09 19	DATE COMPLETED	01/09/2020
\$25.00 Filing F	Fee Received	Receipt No.	(a)(latin)
	THE RESERVE OF THE PROPERTY OF	TO THE RESIDENCE OF THE PARTY O	
Spring No:			Creek - Bridge 505
	Name/No:	「 10 mm (10 mm)	THE RESIDENCE OF THE REAL PROPERTY AND ADDRESS OF THE PARTY AND ADDRESS
Marall Na.		The state of the s	THE RESERVE AND ADDRESS OF THE PARTY OF THE
Well No:		Injection Well No:	
Areount of wat	ter requested: 100,000 gallons	Injection Well No:	
Amount of was	ter requested: 100,000 gallons	Grazing Distri	let:
Amount of was	ter requested; 100,000 gallons	Grazing Distri	let:
Amount of was	ter requested: 100,000 gallons	Grazing Distri	let:
Amount of war Other Desc Chapter: Tsai	ter requested: 100,000 gallons ription/Name: ille/Wheatfields / AZ/Arizons / AP/Apache	Grazing Distri Chapter Code NM/New Mexico MK/McKinley	let:
Amount of war Other Desc Chapter: Tsai State:	ter requested: 100,000 gallons cription/Name: ille/Wheatfields / AZ/Arizens / AP/Apache NA/Navajo	Grazing Distri Chapter Code NM/New Mexico MK/McKinley VL/Valencia	let:
Amount of war Other Desc Chapter: Tsai State:	ter requested: 100,000 gallons ription/Name: ille/Wheatfields / AZ/Arizons / AP/Apache	Grazing Distri Chapter Code NM/New Mexico MK/McKinley VL/Valencia BL/Bernalillo	ict: // : 7547 UT/Utah SJ/San Juan
Amount of war Other Desc Chapter: Tsai	ter requested: 100,000 gallons cription/Name: ille/Wheatfields / AZ/Arizens / AP/Apache NA/Navajo	Grazing Distri Chapter Code NM/New Mexico MK/McKinley VL/Valencia BL/Bernalillo SD/Sandoval	let:
Amount of war Other Desc Chapter: Tsai	ter requested: 100,000 gallons cription/Name: ille/Wheatfields / AZ/Arizens / AP/Apache NA/Navajo	Grazing Distri Chapter Code: NM/New Mexico MK/McKinley VL/Valencia BL/Bernalillo SD/Sandoval SO/Socorro RA/Rio Arriba	let:
Amount of was Other Desc Chapter; Tsai State: County:	ter requested: 100,000 gallons ription/Name: ile/Wheatfields / AZ/Arizons / AP/Apache NA/Navajo CO/Coconino	Grazing Distri Chapter Code: NM/New Mexico MK/McKinley VL/Valencia BL/Bernalillo SD/Sandoval SO/Socorro RA/Rio Arriba	let:
Amount of war Other Desc Chapter: Tsai State: County: Quad. No: (7.5	ter requested: 100,000 gallons ription/Name: ile/Wheatfields / AZ/Arizons / AP/Apache NA/Navajo CO/Coconino	Grazing Distri Chapter Code: NM/New Mexico MK/McKinley VL/Valencia BL/Bernalillo SD/Sandoval SO/Socorro RA/Rio Arriba	let:
Amount of war Other Desc Chapter: Tsai State: County: Quad. No: (7.5	ter requested: 100,000 gallons ription/Name: ile/Wheatfields / AZ/Arizons / AP/Apache NA/Navajo CO/Coconino	Grazing Distri Chapter Code: NM/New Mexico MK/McKinley VL/Valencia BL/Bernalillo SD/Sandoval SO/Socorro RA/Rio Arriba	ict: TSAT UT/Utah SJ/San Juan KA/Kane ZONE 12
Amount of war Other Desc Chapter: Tsai State: County: Quad. No: (7.5 UTM COORD	ter requested: 100,000 gallons ription/Name: ile/Wheatfields / AZ/Arizons / AP/Apache NA/Navajo CO/Coconino	Grazing Distri Chapter Code: NM/New Mexico MK/McKinley VL/Valencia BL/Bernalillo SD/Sandoval SO/Socorro RA/Rio Arriba SA/San Juan Y (North) 4016770	ict: // TSA.T UT/Utah SJ/Sm Juan KA/Kane

WUP NO: 20.0065

	LAND S	TATUS		
TRUST THE WATERSHED NAME:	he wash	ALLOTMENT USGS WATERS	OTHER HED CODE NO. 140 AC	204000
A STATE OF THE STA	CONSUMPTIVE WATE	D HEF NEEDED F	OR	
PRIMARY:	CONSUMPTIVE WATE			
() Domestic () Municipal		() Recreational () Industrial		
() Livestock		() Mining () Commercial		
() irrigation Agriculture () Wildlife and Flab	HAVE BEEN THE REAL PROPERTY.	/ Other N12 Ro	ad Construction	
DOMESTIC/MUNICIPAL:				
Number of People: N			Others:	
TYPE OF LIVESTOCK: N/A	() Horses No:) Coats No:	Local District
	() Cattle No:) No:	
TYPE OF CROPS: N/A	() Row (ie., corn)		Acres	STEEL LAND
TYPE OF CROPS: TVIA	() Forage-Hay-Pasture		Acres	STATE OF THE
	() Small Grains () Horticulture (ic., Fruits		Acres	
TYPE OF WILDLIFE: N/A	() Figh No:		() Small Game No: () Birds No:	
THE OF WILDLIFE, INFA			() Birds No:	
			MARKED CLIDDA W BLAN	
IF WATER IS USED FOR INDIDESCRIBING SOURCE AND M				and the said
DESCRIBING SOURCE AND IN SEASON OF MAXIMUM USE:		✓ Summer		inter
MAXIMUM RATE OF USE: 5	The second secon	✓ GPM	()CFS	
EXPECTED DATE WATER US		er 2020		3411516
EXPECTED VOLUME OF WA	TER TO BE USED: 0.3088	9	ac/ft (100,000	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN
METHOD OF WATER DIVER	SION:	nstream Pump Other: Pump in cree	Gate or Gra	vity Flow
				/ Truck
METHOD OF WATER CONVI	Dis Letter Bit	itch Car ther:	iai ripenne	V 11864
ATTACH AN 8 %" X 11" MAP	SHOWING EXACT LOCA	TION OF IDENTIF	JED WATER SOURCE A	ND
SCENARIO/ LOCATION OF V	VIIERE WATER IS TO BE	USED.		
	RETURN FLOW	OR DISCHARGE	APPRIOR.	
AMOUNT OF WATER: N/A	GPM ()CFS		METHOD: () Dir () Indi	rect
			(a) (a)	ection
IS DISCHARGE TREATED IS QUALITY AFFECTED FEDERAL/UIC PERMIT: N/	() YES () NO	IS TEMPERAT	TURE AFFECTED () YE	S ()NO
FEDERAL/UIC PERMIT: N/	Allegation	NPDES PERM	IT NUMBER: N/A	Name of Street, or other Designation of the Street, or other Desig

20.0065

CONDITIONS

- Purpose of definition the Technical Construction and Operations Branch (TCOB), Navajo Nation Department of Water Resources (Department) and "Permittee" means entity, company, water user and its successors.
- Permittee agrees to comply with the terms and conditions of the Water Use Permit and the Navajo Nation Water Code.
 Permittee understands and agrees that failure to comply with the permit shall result in forfeiture of this permit.
- 3. This permit may be revoked if:
 - A. Permittee is not in compliance with any conditions set forth in this permit.
 - B. Permittee is in violation of any provision of the Navajo Nation Water Code.
 - C. Insufficient water supplies are present for whatever reason or terms.
 - D. For any other due cause as a result of negative findings from investigation that is performed by both department and permittee.
- 4. Permit is valid only for the terms specified and shall expire at the end of the term or at the completion of the proposed project or required water usage, whichever comes first. Permittee's rights to obtain water will be limited to the allocated amount. Permittee does not have authority to transfer, convey, or allocate the water subject to this permit to any third party or for any other project not specified herein. It is further agreed between the parties that this permit does not give the Permittee the right to hauf water for hire on the Navajo Reservation, or on land subject to the jurisdiction of the Navajo Nation.
- Permittee agrees to pay for the water used at the applicable water use rate fee. Payment must be made by Permittee within ten working days of receipt of the invoice. The fees for this permit will be adjusted annually over the next five (5) years by multiplying the fee amount that is in effect at the time of an adjustment by the CPI change. The new fee amount shall take effect immediately. CPI change means the amount reported as the "12 munths Percent Change" under the column for "Annual" in the Consumer Price Index All Urban Consumers, U.S. City Average, All Items, Base Periods 1982-84=100 (not seasonally adjusted), as published by the Bureau of Labor Statistics of the United States Department of Labor ("BLS") for the calendar year prior to the year in which the CPI Adjustment is being made. If the applicable BLS publication ceases to be compiled or published, then such other available data or Index as the Navajo Nation determines would be the most comparable to such index shall be used. An Annual Consumer Price Index adjustment from the Bureau of Labor Stallstics will be used for the compounded water use rate and current effective annual interest rate. The annual billing period will be from January through December. Any restructuring of water use fees or water rate increase by the Resources and Development Committee of the Navajo Nation Council will be effective immediately.
- 6. Permittee agrees to submit meter readings or other evidence showing the quantity of water withdrawn pursuant to this permit to the TCOB office at the end of the term or at the completion of the proposed project or required water usage, whichever comes first. The water use data will be submitted by the Permittee.
- Any breach of this permit or any failure to pay in full for the water used by due date will be a breach of this permit and the Navajo Nation may terminate this permit upon any breach by giving the Permittee notice of such termination in writing not less than ten (10) days prior to the effective date of termination, provided that if, Permittee remedies any such breach within said ten (10) days period, the permit will remain in effect. Said notice shall state the grounds upon which the termination is being made. It will be a breach of this permit and grounds for termination thereof, if Permittee obtains, or attempts to obtain any other water from any source within the jurisdiction of the Navajo Nation other than the source or sources permitted in this permit.
- 8. Permittee agrees to obtain a Water Use Permit for each place of withdrawal of water in conjunction with the place of use prior to making use of such source. Authorization granted under this permit is only for the stated use of the indicated water source location. Permittee is responsible for obtaining any applicable permit from the appropriate department/agency that may be required for the proposed work.
- Permittee agrees to hold harmless and indemnify the Navajo Nation against any and all losses, costs, damages, claims,
 expenses or other liability whatsoever, rising out of, or connected with Permittee's services under this permit including but
 not limited to, any accident or injury to person or property.

20.0065

CONDITIONS

- 10. All disputes arising from the subject matter of this permit or the performance thereof will be settled in the Navajo Nation Courts and under the laws of the Navajo Nation. Nothing herein shall be construed as a waiver of the sovereign immunity of the Navajo Nation, pursuant to 1 N.T.C. §351 at seq.
- 11. Permittee agrees to maintain the immediate area in a safe and sanitary manner, free of unnecessary debris,
- 12. If permittee hires sub-contractors to haul water covered by Water Use Permit, Permittee must notify the Navajo TCOB office of sub-contractors in writing.
- 13. In case of a Tribal Well, no more than two-thirds of the water in the water tank will be withdrawn. Before further withdrawals are to be made from a water tank, the water level in the tank must be allowed to rise back to the original level.
- 14. It is agreed that the Department of Water Resources reserves the right to limit the quantity of water that can be taken under this permit to the above stated amount or less, to limit or restrict the sources of the Navajo Nation and in the best interests of the Navajo Nation. Such limitation will be imposed at the discretion of the Director, Department of Water Resources.
- Permittee agrees to allow reasonable entry upon their premises by Navajo Nation Employees engaged in the administration of this permit.
- 16. When insufficient water supplies are present for whatever reason or terms, the following priority of uses shall be considered in the order in which they are listed: 1) Domestic and municipal uses 2) Stock watering uses 3) Agriculture uses 4) Instream needs, for fish, wildlife conservation and recreation uses 5) Economic development uses including industrial and power uses.

OFFICIAL USE ONLY

Wes () No Date Ol 09/2020

Technical Reviewer

Approved/Disapproved: Autora Shurlay Date 1/9/2020

Branch Director, TCOB, DWR, DNR

If Disapproved State Reasons:

Revised 98/10/17

Permittee's Signature



COMPLY w/Navajo
Water Code/TCOB
Rules and Regulations.
SUBMITTAL of
Water Withdrawn
LOAD COUNTS is
REQUIRED.

Department of Water Resources
Technical, Construction and Operations Branch
P.O. Box 678

Fort Defiance, Arizona 86504
Ph. No. (928) 729-4132/Fax No. (928) 729-4421
www.watercode.navalo-nan.gov

APPROVED

WATER USE PERMIT

20.0066

NOTE: This permit is valid only upon signature of the Branch Director, Technical, Construction and Operations Branch (TCOB), or Director, Department of Water Resources (DWR) or Division Director, Division of Natural Resources (DNR).

	Navajo Engineering an	FIRST; OR C	COMPANY NAME	
MAILING AD	DRESS: P. O. Box 969		A Sugar	2012018118
CITY: Ship	prock	STATE: New Mexico	ZIP CODE:	87420
CONTACT PE	RSON: Herman Patterson	TELEPHONE NO): 505-210-703	5
EMAIL ADDR	LESS: herman@navajo.net			
	************	**********	The second second	1
DATE RECEI	VED: 12/09/19	DATE COMPLETE	D 01109	10000
\$25.00 Filling F	ee Received	Receipt No.	Lnitle	I MW
	IDENTIFIE	D WATER SOURCE TO BE USE!	o Ostfields Creek -	Bridge 504
Spring No.		Stream Name: Whe		a de de la companione
		Lake/Reservoir Nan		
Well No: _	400 000 cellege	Injection Well No:		
Amount of wat	er requested: 100,000 gallons	The state of the s	. 11	
Other Desc	ription/Name:	Grazing Dia	TEAT	
	le/Wheatfields	Chapter Coc		
State:	✓ AZ/Arizons	NM/New Mexico		'/Utah
County:	✓ AP/Apache NA/N≡vajo	MK/McKinley VL/Valencia	200	/San Juan V/Kane
	CO/Coconino	BL/Bernalillo		
		SD/Sandeval SO/Socerro		
		RA/Rio Arriba		
	11. 10	SA/San Juan		
	min. Series) Upper When	4+101ds-CVUMO		
Quad. No: (7.5			THE RESERVE THE PARTY NAMED IN	
Quad. No: (7.5 UTM COORD	INATES: X (East) 669681	Y (North) 4011039	ZONE	
UTM COORD	NATES: X (East) 669681 V / NESESWNW / NESES 40 Acre 166	WNW 34 _	33N Township	30E Range

20.0066

WUPNO			
** 01 110	The second second		

LAND STATUS	
TRUST PEE LEASE ALLOTM WATERSHED NAME: Chinic Fund usgs	HENT OTHER WATERSHED CODE NO/4080204040
CONSUMPTIVE WATER USE NE PRIMARY: () Domestic () Municipal () Livestock () Minis () Irrigation Agriculture () Wildlife and Fish CONSUMPTIVE WATER USE NE () Recre () Minis () Indus () Minis () Comm () Wildlife and Fish	estional Mrial ng mercial r N12 Road Construction
DOMESTIC/MUNICIPAL: Number of People: N/A Number of Homes:	N/A Others: N/A
TVPE OF LIVESTOCK: N/A () Horses No: () Cattle No:	() Goats No:
TYPE OF CROPS: N/A () Row (ie., corn) () Forage-Hay-Pasture () Small Grains () Horticulture (ie., Fruits & Vegetable	Acres Acres Acres
TYPE OF WILDLIFE: N/A () Fish No: () Large Game No: () Others No:	() Birds No:
IF WATER IS USED FOR INDUSTRIAL OR MINING PURPOSES, A DESCRIBING SOURCE AND METHODS OF DIVERSION, CONVEY	
SEASON OF MAXIMUM USE: Spring MAXIMUM RATE OF USE: 50 GPM	r Fall Wioter
EXPECTED DATE WATER USAGE TO BEGIN: December 2020 EXPECTED VOLUME OF WATER TO BE USED: 0.30689	sc/ft (100,000 galions)
METHOD OF WATER DIVERSION: Instream Pure Other: Pure	mp Gate or Gravity Flow
METHOD OF WATER CONVEYANCE: Ditch Other:	Canal Pipeline / Truck
ATTACH AN 8 1/2" X 11" MAP SHOWING EXACT LOCATION OF II SCENARIO/ LOCATION OF WHERE WATER IS TO BE USED.	DENTIFIED WATER SOURCE AND
AMOUNT OF WATER: N/A () CFS () GP	METHOD: () Direct
	MPERATURE AFFECTED () VES () NO S PERMIT NUMBER: N/A

CONDITIONS

20.0066

- Purpose of definition the Technical Construction and Operations Branch (TCOB), Navajo Nation Department of Water Resources (Department) and "Permittee" means entity, company, water user and its successors.
- Permittee agrees to comply with the terms and conditions of the Water Use Permit and the Navajo Nation Water Code.
 Permittee understands and agrees that failure to comply with the permit shall result in forfeiture of this permit.
- 3. This permit may be revoked if:
 - A. Permittee is not in compliance with any conditions set forth in this permit.
 - B. Pormittee is in violation of any provision of the Navajo Nation Water Code.
 - C. Insufficient water supplies are present for whatever reason or terms.
 - D. For any other due cause as a result of negative findings from investigation that is performed by both department and permittee.
- 4. Permit is valid only for the terms specified and shall expire at the end of the term or at the completion of the proposed project or required water usage, whichever comes first. Permittee's rights to obtain water will be limited to the allocated amount. Permittee does not have authority to transfer, convey, or allocate the water subject to this permit to any third party or for any other project not specified herein. It is further agreed between the parties that this permit does not give the Permittee the right to hauf water for hire on the Navajo Reservation, or on land subject to the jurisdiction of the Navajo Nation.
- Permittee agrees to pay for the water used at the applicable water use rate fee. Payment must be made by Permittee within ten working days of receipt of the invoice. The fees for this permit will be adjusted annually over the next five (5) years by multiplying the fee amount that is in effect at the time of an adjustment by the CPI change. The new fee amount shall take effect immediately. CPI change means the amount reported as the "12 months Percent Change" under the column for "Annual" in the Consumer Price Index All Urban Consumers, U.S. City Average, All Items, Base Periods 1982-84-100 (not seasonally adjusted), as published by the Bureau of Labor Statistics of the United States Department of Labor ("BLS") for the calendar year prior to the year in which the CPI Adjustment is being made. If the applicable BLS publication ceases to be compiled or published, then such other available data or index as the Navajo Nation determines would be the most comparable to such index shall be used. An Annual Consumer Price Index adjustment from the Bureau of Labor Statistics will be used for the compounded water use rate and current effective annual interest rate. The annual billing period will be from January through December. Any restructuring of water use fees or water rate increase by the Resources and Development Committee of the Navajo Nation Council will be effective immediately.
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- 7. Any breach of this permit or any failure to pay in full for the water used by due date will be a breach of this permit and the Navajo Nation may terminate this permit upon any breach by giving the Permittee notice of such termination in writing not less than ten (10) days prior to the effective date of termination, provided that if, Permittee remedies any such breach within said ten (10) days period, the permit will remain in effect. Said notice shall state the grounds upon which the termination is being made. It will be a breach of this permit and grounds for termination thereof, if Permittee obtains, or attempts to obtain any other water from any source within the jurisdiction of the Navajo Nation other than the source or sources permitted in this permit.
- 8. Permittee agrees to obtain a Water Use Permit for each place of withdrawal of water in conjunction with the place of use prior to making use of such source. Authorization granted under this permit is only for the stated use of the indicated water source location. Permittee is responsible for obtaining any applicable permit from the appropriate department/agency that may be required for the proposed work.
- Permittee agrees to hold harmless and indemnify the Navajo Nation against any and all losses, costs, damages, claims,
 expenses or other liability whatsoever, rising out of, or connected with Permittee's services under this permit including but
 not limited to, any accident or injury to person or property.

20.0066

CONDITIONS

- 10. All disputes arising from the subject matter of this permit or the performance thereof will be settled in the Navajo Nation Courts and under the laws of the Navajo Nation. Nothing herein shall be construed as a waiver of the sovereign immunity of the Navajo Nation, pursuant to 1 N.T.C. §351 et seq.
- 11. Permittee agrees to maintain the immediate area in a safe and sanitary manner, free of unnecessary debris.
- If permittee hires sub-contractors to haul water covered by Water Use Pennit, Permittee must notify the Navajo TCOB office 12. of sub-contractors in writing.
- In case of a Tribal Well, no more than two-thirds of the water in the water tank will be withdrawn. Before further 13. withdrawels are to be made from a water tank, the water level in the tank must be allowed to rise back to the original level.
- 14. It is agreed that the Department of Water Resources reserves the right to limit the quantity of water that can be taken under this permit to the above stated amount or less, to limit or restrict the sources of the Navajo Nation and in the best interests of the Navajo Nation. Such limitation will be imposed at the discretion of the Director, Department of Water Resources.
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- 16. When insufficient water supplies are present for whatever reason or terms, the following priority of uses shall be considered in the order in which they are listed: 1) Domestic and municipal uses 2) Stock watering uses 3) Agriculture uses 4) Instream needs, for fish, wildlife conservation and recreation uses 5) Economic development uses including industrial and power uses.

Date 11-18-1 Permittee's Signature

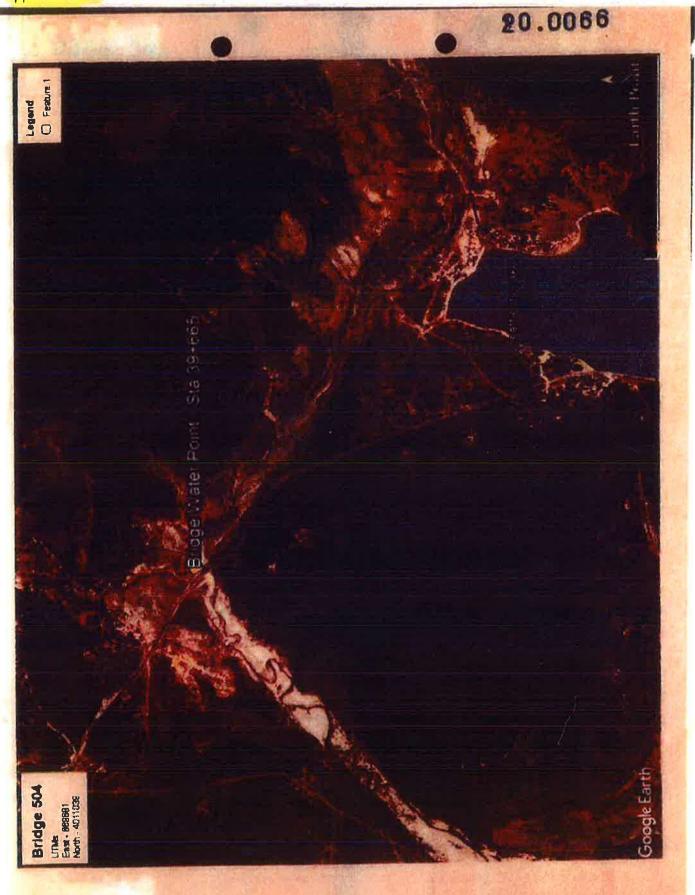
OFFICIAL USE ONLY

Date 1/9/2020

Approved/Disapproved:

If Disapproved State Reasons:

Revised 08/10/17



Appendix C Survey Plat & Legal Description

Wheatfields Borrow Pit Mining & Reclamation Plan



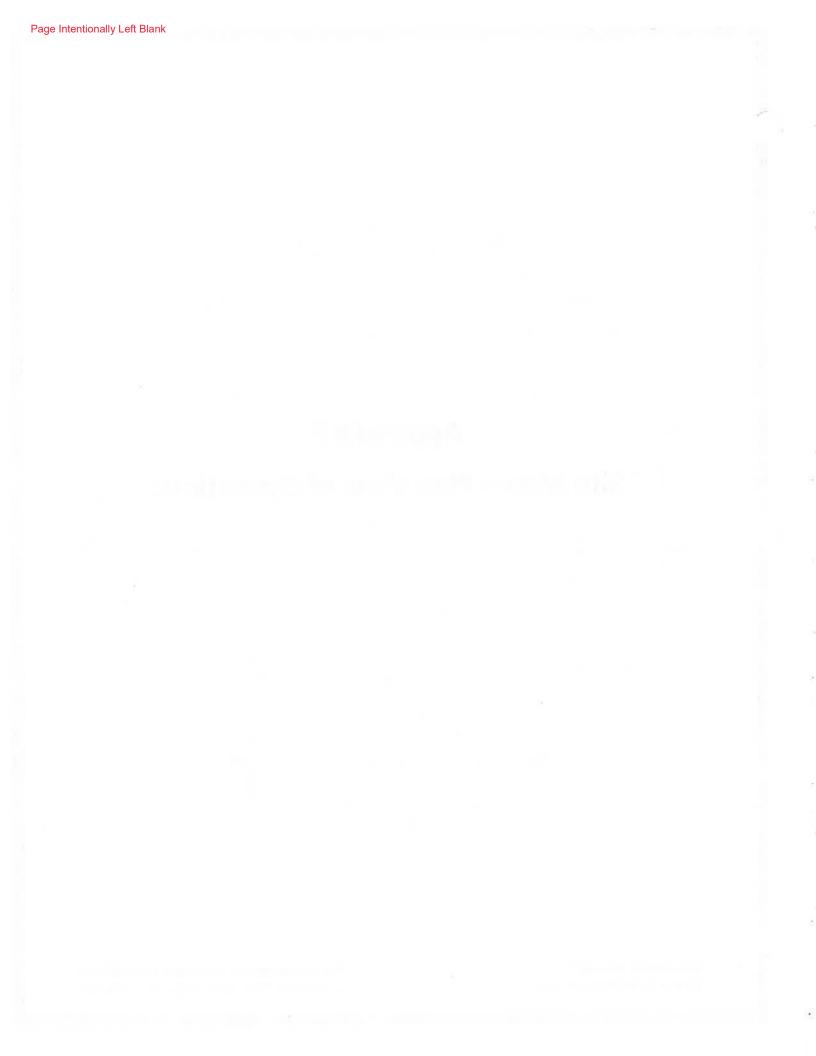
Appendix D Topographical Map of Existing/Final Grade

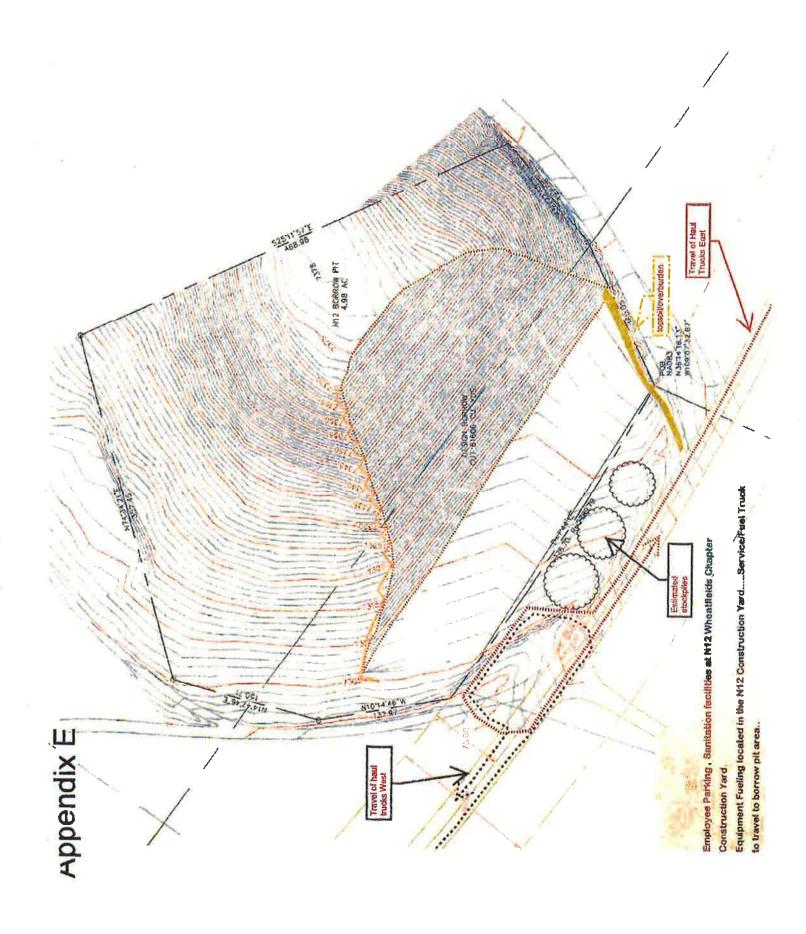
Wheatfields Borrow Pit Mining & Reclamation Plan

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Wheatfields Borrow Pit Mining & Reclamation Plan





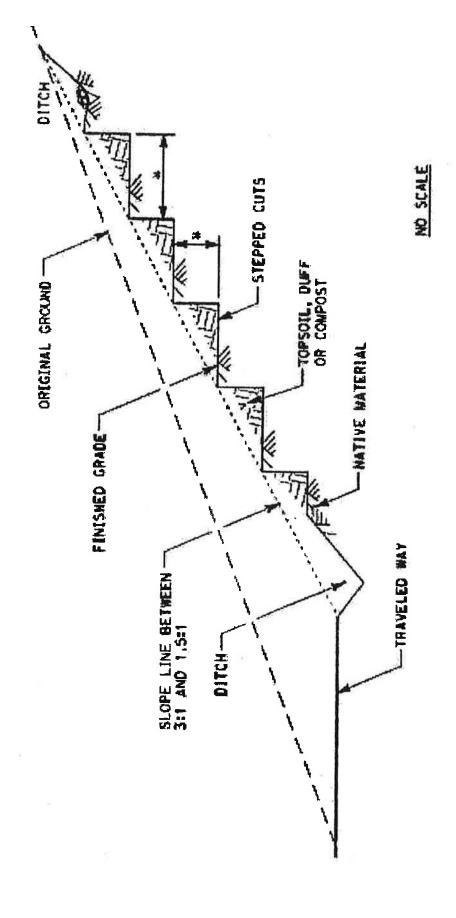


Appendix F Schematic Type Cross-Section

Wheatfields Borrow Pit Mining & Reclamation Plan

Navajo Engineering & Construction Authority #1 Uranium Boulevard – Shiprock, NM 87420





* DINENSIONS TO BE SPECIFIED

DISCLAIMER: THIS TYPICAL SECTION IS SCHEMATIC ONLY AND CAN NOT BE USED IN A CONTRACT DOCUMENT.

THE SCALE, KEY DIMENSIONS AND OTHER CRITICAL DETAILS HAVE PURPOSELY BEEN OWITTED.





Wheatfields Borrow Pit Mining & Reclamation Plan Navajo Engineering & Construction Authority #1 Uranium Boulevard – Shiprock, NM 87420



Appendix G

Navajo Engineering and Construction Authority Employee Training List

Aerial Lifts

Asbestos Awareness

Confined Space Entry for General and Construction Industry

Crane and Rigging Safety

Fall Protection

First Aid/CPR/AED

Flagger

Forklift Operation

Hazard Communication (GHS)

HAZWOPER

Ladders and Stairway Safety

New Employee Orientation

OSHA 10 & 30 Outreach for Construction Industry

OSHA 10 & 30 Outreach for General Industry

Personal Protection Equipment

Respiratory Protection

Scaffolds

Supervisor's Alcohol and Drug Reasonable Suspicion Training

DATA

American Red Cross

New Environment, Inc.

Associated Contractors of New Mexico

Trenching and Excavation

MSHA New Miner / San Juan School of Energy

The safety personnel are authorized instructors through the University of Texas at Arlington, unless indicated. If any other trainings are needed the safety personnel are able to research and develop a training presentation. The safety personnel have various credentials from the UTA (Specialist in Safety and Health, Certified Safety and Health Officer, and Safety, Health, and Environmental Professional).

Daniel Gourneau, Safety Manager/SSH (Construction)

(505) 210-7017

Lemuel D. Benallie, Field Safety Officer/SSH/CSHO/SHEP (General and Construction)

(505) 210-7018

Byron R. Smith, Field Safety Officer/SSH (Construction)

(505) 210-7019



Appendix H OSHA Memorandum of Understanding

Wheatfields Borrow Pit Mining & Reclamation Plan Navajo Engineering & Construction Authority #1 Uranium Boulevard — Shiprock, NM 87420



INTERAGENCY AGREEMENT BETWEEN THE MINE SAFETY AND HEALTH ADMINISTRATION U.S. DEPARTMENT OF LABOR AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION U.S. DEPARTMENT OF LABOR

The Mine Safety and Health Administration (MSHA), U.S. Department of Labor, and the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor, have entered into this agreement to delineate certain areas of authority, set forth factors regarding determinations relating to convenience of administration, provide a procedure for determining general jurisdictional questions, and provide for coordination between MSHA and OSHA in all areas of mutual interest.

A. AUTHORITY AND PRINCIPLE

- 1. The Federal Mine Safety and Health Act of 1977, Pub. L. 91-173 as amended by Pub. L. 95-164 (Mine Act), authorizes the Secretary of Labor to promulgate and enforce safety and health standards regarding working conditions of employees engaged in underground and surface mineral extraction (mining), related operations, and preparation and milling of the minerals extracted.
- 2. The Occupational Safety and Health Act of 1970 (OSH Act) gives the Secretary of Labor authority over all working conditions of employees engaged in business affecting commerce except those conditions with respect to which other Federal agencies exercise statutory authority to prescribe or enforce regulations affecting occupational safety or health. The OSH Act also provides that States may operate their own occupational safety and health programs under a plan approved by the Secretary.
- 3. This agreement is entered into the set forth the general principle and specific procedures which will guide MSHA and OSHA. The agreement will also serve as guidance to remployers and employees in the affected industries in determining the jurisdiction of the two statute involved. The general principle is that as to unsafe and unhealthful working conditions on mine sites and in milling operations, the Secretary will apply the provisions of the Mine Act and standards promulgated thereunder to eliminate those conditions. However, where the provisions of the Mine Act either do not cover or do not otherwise apply to occupational safety and health hazards on mine or mill sites (e.g., hospitals on mine sites) or where there is statutory coverage under the Mine Act but there exist no MSHA standards applicable to particular working conditions on such sites, then the OSH Act will be applied to those working conditions. Also, if an employer has control of the working conditions on the mine site or milling operation and such employer is neither a mine operator nor an independent contractor subject to the Mine Act, the OSH Act may be applied to such an employer where

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the application of the OSH Act would, in such a case, provide a more effective remedy than citing a a mine operator or an independent contractor subject to the Mine Act who does not, in such circumstances, have direct control over the working conditions.

B. CLARIFICATION OF AUTHORITY

- 1. Section 4 of the Mine Act gives MSHA Jurisdiction over each coal or other mine and each operator of such mine. Section 3(d) defines "operator" and includes in that definition independent contractors performing construction at mines.
- 2. Section 3(h)(1) of the Mine Act gives MSHA jurisdiction over lands, structures, facilities, equipment, and other property used in, to be used in, or resulting from mineral extraction or used in or to be used in mineral milling. This includes the authority to regulate the construction of such facilities, structures and other property. Further, Section 3(h)(1) directs the Secretary Of Labor, in

making a determination of what constitutes mineral milling, to give due consideration to the convenience of administration resulting from the delegation to one Assistant Secretary of all authority with respect to the health and safety of miners employed at one physical establishment.

- 3. Appendix A provides more detailed descriptions of the kinds of operations included in mining and milling and the kinds of ancillary operations over which OSHA has authority. Notwithstanding the clarification of authority provided by Appendix A, there will remain areas-of uncertainty regarding the application of the Mine Act, especially in operations near the termination of the milling cycle and the beginning of the manufacturing cycle.
- 4. Under section 3(h)(1), the scope of the term milling may be expanded to apply to mineral product manufacturing processes where these processes are related, technologically or geographically, to milling. Or, the term milling may be narrowed to exclude from the scope of the term processes listed in Appendix A where such processes are unrelated, technologically, or geographically, to mineral milling. Determinations shall be-made by agreements between MSHA and OSHA.
- 5. The following factors, among others, shall be considered in making determinations of what constitutes mineral milling under section 3(h)(1) and whether a physical establishment is subject to either authority by MSHA or OSHA: the processes conducted at the facility, the relation of all processes at the facility to each other, the number of individuals employed in each process, and the expertise and enforcement capability of each agency with respect to the safety and health hazards associated with all the processes conducted at the facility. The consideration of these factors will reflect Congress intention that doubts be resolved in favor of inclusion of a facility within the coverage of the Mine Act.
- 6. Pursuant to the authority in section 3(h)(1) to determine what constitutes mineral milling considering convenience of administration, the following jurisdictional determinations are made:

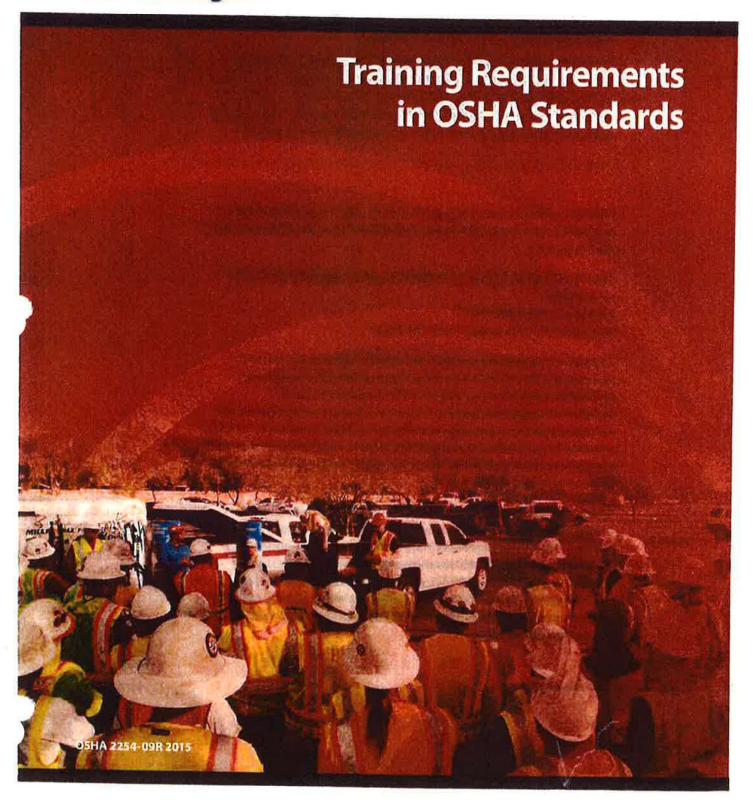
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- a. MSHA jurisdiction includes salt processing facilities on mine property; electrolytic plants where the plants are an integral part of milling operations; stone cutting and stone saving operations on mine property where such operations do not occur in a stone polishing or finishing plant: and alumina and cement plants.
- b. OSHA jurisdiction includes the following, whether or not located on mine property: brick, clay pipe and refractory plants; ceramic plants; fertilizer product operations; concrete batch, asphalt batch, and hot mix plants; smelters and refineries. OSHA jurisdiction also includes salt and cement distribution terminals not located on mine property, and milling operations associated with gypsum board plants not located on mine property.
- 7. "Borrow Pits" are subject to OSHA jurisdiction except those borrow pits located on mine property or related to mining. (For example, a borrow pit used to build a road or construct a surface facility on mine property is subject to OSHA jurisdiction). Borrow pits means an area of land where the overburden, consisting of unconsolidated rock, glacial debris, or other earth material over lying bedrock is extracted from the surface. Extraction occurs on a one-time only basis or only intermittently as need occurs, for use as fill materials by the extracting party in the form in which it is extracted. No milling is involved, except for the use of a scalping screen to remove large rocks, wood and trash. The material is used by the extracting party more for its bulk than its intrinsic qualities on land which is relatively near the borrow pit.
- 8. When any question of jurisdiction between MSHA and OSHA arises, the appropriate MSHA District Manager and OSHA Regional Administrator or OSHA State Designee in those States with approved plans shall attempt to resolve it at the local level in accordance with this Memorandum and existing law and policy. Jurisdictional questions that can not be decided at the local level shall be



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Occupational Safety and Health Act of 1970

"To assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, education, and training in the field of occupational safety and health."

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This publication provides a general overview of a variety of standards-related topics. This publication does not alter or determine compliance responsibilities which are set forth in OSHA standards, and the Occupational Safety and Health Act. Moreover, because interpretations and enforcement policy may change over time, for additional guidance on OSHA compliance requirements, the reader should consult current administrative interpretations and decisions by the Occupational Safety and Health Review Commission and the courts.

This guidance document is not a standard or regulation, and it creates no new legal obligations. It contains descriptions of mandatory safety and health standards. The Occupational Safety and Health Act requires employers to comply with safety and health standards and regulations promulgated by OSHA or by a state with an OSHA-approved state plan. In addition, the Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm.

Training Requirements in OSHA Standards

Occupational Safety and Health Administration U.S. Department of Labor



OSHA 2254-09R 2015

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Appendix I **NECA Safety Policy Manual**

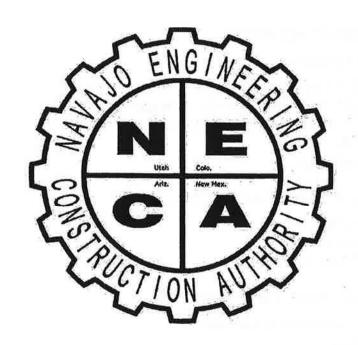
Wheatfields Borrow Pit Mining & Reclamation Plan

Navajo Engineering & Construction Authority #1 Uranium Boulevard – Shiprock, NM 87420



NAVAJO ENGINEERING & CONSTRUCTION AUTHORITY

AN ENTERPRISE OF THE NAVAJO NATION



SAFETY POLICY MANUAL

NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY

SAFETY POLICY

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INTRODUCTION

NECA's Safety Policy Manual is intended to provide information on safe work practices. The information provided can help prevent injuries and property loss. This safety policy alone will not prevent injuries or property loss, nor does it cover all of the scenarios that may result in an injury or property loss that may result in an injury and accident. It simply emphasizes certain instances and practices as a minimum to be followed as an employee of NECA.

Safety and the well-being of all employees are first and foremost at Navajo Engineering and Construction Authority (NECA). NECA has **ZERO TOLERANCE** for unsafe acts or actions that place individuals and equipment in harm's way. Anyone who knowingly places people and or equipment in harm's way will be terminated immediately.

Being employed at NECA you accept the responsibility to strive towards an accident free environment. It is your responsibility to protect yourself and fellow employees from common workplace hazards.

No employee is required to perform work that is unsafe or dangerous to life and health. Each employee's ability in detecting hazards, reporting unsafe conditions and controlling workplace hazard is a condition of employment. It is each employee's responsibility to immediately inform his/her supervisor about situations that need to be corrected. There shall be no retaliation to employees for reporting a safety violation.

The Safety Policy Manual shall be reviewed continuously and may change as safety regulations change. All suggestions will be considered and reviewed and all revisions shall be approved by management and disseminated to all NECA employees.

FORWARD

Being an enterprise of the Navajo Nation, NECA shall comply with all regulations set forth by the Navajo Occupational Safety and Health Act of 2000 and enforced by the Navajo Nation Occupational Safety and Health Administration (NNOSIIA), including policies governing the safety and health of our employees and the safe operation of NECA.

Whenever an employee is uncertain about how to do a job safely, it is his/her responsibility to ask a qualified person for assistance.

I. MANAGEMENT

The management of Navajo Engineering and Construction Authority hereby pledges its support and interest in an accident and injury control program and continues to solicit employees' cooperation and participation in the Safety Program.

All management and supervisory personnel shall fully cooperate with the Safety Department Manager and implement his recommendations and policies set forth in this manual.

The employee shall start learning about his/her job and develop attitudes about many things – including SAFETY on the first day. Therefore, much of the effort put into NECA Safety Program will be directed toward education and influencing the employee's safety behavior.

Activities to Build Safe Attitudes

- A. Encourage the employees to actively participate in the Safety Program.
- B. Formally train and educate the employees in safe practices as required or necessary.
- C. Post safety notices for the employees and promote safety in the communities.
- D. Reward employees through the Safety Incentive Program.

II. ASSIGNMENT OF AUTHORITY

The NECA Safety Manager shall be responsible for NECA's Safety Program.

Safety Manager

The Safety Manager will be in charge of the Safety Department. He will supervise the Field Safety Officers to whom he may delegate the authority for activities.

Safety Officers

The Safety Officer must be able to determine:

- A. Assist the foreman on how to remove physical hazards from work areas.
- B. Assist the foreman on how to substitute safe practices for the unsafe practice of employees.
- C. Promote safety, by attending field safety meetings.
- D. That safety practices and conditions are observed throughout the projects.
- E. Review that proper arrangement is made for treating and transporting injured personnel.
- F. Review all accident reports and assist the foremen in developing a plan to eliminate unsafe practices or conditions from recurrence by stopping all job activities to conduct post incident safety meeting as required or necessary.

Failure to adhere to A-F of this section will result in immediate disciplinary action, up to and including termination.

General Manager and Operations Manager

The General Manager and Operations Manager shall ensure the safety program is adhered to by all NECA Employees.

General Superintendents and Field Superintendents

General Superintendent and Field Superintendents shall be responsible for carrying out the following:

- A. Promote safety, by attending field safety meetings.
- B. Determine that safety practices and conditions are observed throughout the entire assigned project.
- C. See that proper arrangements are made for treating and transporting injured personnel.
- D. Review all accident reports and review disciplinary action taken by the foremen and take steps to eliminate unsafe practices or conditions from recurrence by stopping all job activities to conduct post incident safety meeting as required or necessary.
- E. Insure that all subcontract work is completed in a safe manner and require all subcontractors to comply with NECA Safety Program and all governmental regulations pertaining thereto.
- F. Enforce all contents of this manual to insure contracting agency personnel and the Office of Environmental Health participate in NECA Safety Program.

Failure to adhere to A-F of this section will result in immediate disciplinary action, up to and including termination.

Foremen

The Foremen is responsible for safe work conditions and practices of their crews by complying with the following:

- A. Orientate all new employees of NECA by clearly explaining and reviewing the *NECA Safety Policy Manual* at the time of sign-up and document the orientation. Documentation of the orientation shall be forwarded to the Safety Department Manager.
- B. Conduct a weekly project wide Safety Meeting and document the meeting on the appropriate form. A copy of the meeting minutes shall be forwarded to the Safety Manager for review.
- C. Insures that Tailgate Safety Meetings are conducted at the beginning of each work day and/or when confronted with a new task during the work day for each affected project crew. A copy of the meeting minutes shall be forwarded to the Safety Manager for review.
- D. Completes a Job Hazard Analysis (JHA) for task requiring such documentation. A copy of the JHA shall be forwarded to the Safety Manager for review.
- E. See that all injuries are properly cared for and the proper documents are filled out for the incident; conduct an immediate investigation of the accident causing an injury, and report the same to his/her immediate supervisor and Safety Department.
- F. Plan for the transportation and setting up of temporary traffic control devices.

G. Provide required personal protective clothing and equipment and insure employees utilize and maintain them correctly. Insures that all subcontractors on his/her worksite adhere to the Subcontractor's section of this policy.

Failure to adhere to A-G of this section will result in immediate disciplinary action, up to and including termination.

Subcontractors

All subcontractors are informed that the construction phases of each project falls under the jurisdiction of the Navajo Occupational Safety and Health Administration. No subcontractor shall allow any employee to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health or safety as determined under construction safety and health standards (Title 29, Labor, Code of Federal Regulations Chapter IVII, Part 1926 of the Federal Register) as adopted by the Navajo Nation.

Subcontractors are further advised that sand and gravel or other mining phases of this project falls under the jurisdiction of the Navajo Nation Mine Safety and Health Administration (NNMSHA). It is the Subcontractor's obligation to conduct his operations on the project in accordance with the applicable NNMSHA Health and Safety standards.

Subcontractor's personnel are required to wear all required personal protective equipment at all times while on any NECA premises as directed by the applicable NOSHA standard(s) or directed by the NECA Project Superintendent/Foreman.

All costs to NECA resulting from citations caused by a subcontractor's failure to comply with applicable health and safety standards shall be borne by the subcontractor.

III. MAINTAINING SAFE WORKING CONDITIONS

Safety Planning

Safety planning shall be a part of everyday NECA activities and shall be included in all NECA pre-construction conferences with consideration given to the following:

- A. Proper training of the assigned employees.
- B. Availability of emergency and first aid services and equipment. Telephone numbers of police, fire department, hospital, clinics, etc. must be known and displayed at all times.
- C. Sanitation facilities shall be provided.
- D. On the job safety planning shall be a daily operation.
- E. Drinking water should be made available to the crews at all times.

Job Observation

A safety inspection of work practices shall require the active participation of all supervisory personnel. The inspection shall be a safety observation plan by which Superintendents and Foremen observe work as it is in progress. The observation shall include the use of tools, materials and equipment, as well as any unsafe method(s) or order of procedure in performing an act that indicates or lack of planning or failure to take into account all the circumstances surrounding the particular job. If any deficiencies are found, immediate corrections shall be made.

Field Safety Officers

The Field Safety Officers shall inspect work locations on regular intervals. Inspections shall be documented on the approved inspection form. The Field Superintendent or Foreman shall be informed of any deficiencies in their area.

The Safety Officer shall re-inspect the area in question within a reasonable amount of time to determine compliance. Inspections indicating immediate danger to life or health shall be grounds for shut down of the operation.

It is the responsibility of the project superintendent or foreman to correct all deficiencies.

The Project Superintendent and Foreman shall keep a record of deficiencies to determine whether deficiencies are recurring.

Failure to adhere to this section will result in immediate disciplinary action, up to and including termination.

IV. ESTABLISHMENT OF SAFETY TRAINING

Project Superintendents and Foremen

- A. Shall devote a portion of each production meeting to safety.
- B. Shall participate in various safety training sessions required by NECA, equipment and suppliers/dealers, and insurance services.
- C. Shall be trained in first aid, CPR and AED procedures.

Employees

The training of employees shall begin the first day he/she goes to work.

- A. Shall review and understand the *Field Employee's Handbook* and this safety policy with the immediate supervisor.
- B. Each employee shall receive a copy of *NECA Field Employee's Handbook* which contains work rules, policies, procedures and Safety Program at the time of sign-up.

- C. Signs and posters describing NECA Safety Program shall be posted on bulletin boards and adhered to.
- D. Shall attend Weekly Safety Meetings.
- E. Shall adhere to the foreman's instructions concerning the safe performance of his/her job.
- F. Shall receive task training for specific circumstances that require such training.
- G. Each employee shall perform a hazardous analysis of their immediate worksite and surroundings.
- H. Every employee is responsible for housekeeping duties that affect their worksite.
- I. All injuries that occur on the job must be reported to the supervisor immediately.

Failure to adhere to A-I of this section will result in immediate disciplinary action, up to and including termination.

Accident and Injury Reporting

Every accident that occurs will be thoroughly investigated as soon as possible to find its cause and to prevent recurrence.

- A. ALL accidents, property damages and injuries shall be reported by the foreman/supervisor immediately following the accident;
- B. The worker is responsible to immediately report his/her injury to his/her supervisor and the safety department.
- C. The supervisor is responsible to complete the report, including photographs, statements, and arrange for estimates for repair, etc.
- D. Upon completion of the investigation the Safety Officer shall review the accident report and work with all employees involved in devising a means to prevent recurrence.
- E. All accidents, property damages and injuries shall be reported to the NECA Safety Department.
- F. Safety Department shall maintain monthly job reports concerning injuries, accident, property damage and safety meeting minutes.
- G. Safety Department shall also maintain annual Occupational Injury and Illness Records per Occupational Safety and Health Act (OHSA) regulations.

Failure to adhere to A-G of this section will result in immediate disciplinary action, up to and including termination.

V. SAFETY POLICIES

No employee of NECA shall work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health or safety as determined under rules promulgated in the Navajo Occupational Safety and Health Act (NOHSA).

Safe work performance is the first and the utmost concern of NECA. Safety is every employee's responsibility. Each and every employee is expected to work in a safe manner, both for self-protection and that of co-workers. When it is determined by the immediate supervisor or the Safety Department that a worker is deliberately disobeying the Safety Program and where he/she continues through unsafe acts to endanger his/her own life and the lives of others, will result in immediate disciplinary action, up to and including termination.

Hazardous Energy Control (Lockout/Tagout)

These procedures will apply to the control of energy when installing, removing, servicing, connecting into existing utility systems, or maintaining machines and equipment. These procedures will be utilized to prevent unexpected energization, start up, or release of stored energy that may cause injuries to employees. The energy source can be electrical, mechanical, hydraulic, pneumatic, chemical, or other sources. Employees will be trained to perform and abide by Lockout/Tagout controls. Authorized employees will document energy control procedures and make sure that the controls are communicated to other employees. Inspections shall be performed to ensure the effectiveness of the hazardous energy control system.

- A. The NECA lockout device shall be standardized and have one or more of the following including a tagout indicating the reason for lockout.
 - 1. DO NOT START
 - 2. DO NOT OPEN
 - 3. DO NOT OPERATE
 - 4. DO NOT CLOSE
 - 5. DO NOT ENERGIZE

Each lockout device shall have a tagout device attached.

- B. The Lockout/Tagout device(s) shall indicate the identity of the employee applying the device(s).
- C. Lockout/Tagout device(s) will be placed on the energy source that controls the machine or equipment. If more than one energy source exists, all sources will be isolated with the Lockout/Tagout devices.
- D. Authorized employees are required to test Lockout/Tagout devices to ensure that all energy sources are disabled and the machine or equipment cannot be operated.
- E. Lockout/Tagout devices shall not be used for any other purpose, but to control hazardous energy.
- F. Lockout/Tagout devices shall be capable of withstanding the environment to which they are exposed for the minimum period of time that exposure is expected.
- G. Lockout devices shall be substantial enough to prevent removal without the use of excessive force or unusual techniques, such as with the use of bolt cutters or other metal cutting tools.

H. Tagout devices shall be able to withstand accidental or inadvertent removal. Attaching material should be non-reusable, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds.

Release from Lockout/Tagout

Before removing any Lockout/Tagout devices, these procedures shall be followed:

- A. The work area shall be inspected to ensure that all nonessential items and that all employees are safely positioned or removed.
- B. All components of the machine or equipment have to be operationally intact.

Each Lockout/Tagout device shall be removed from each energy controlling device by the employee who applied the device. If the employee who applied the device is not available, this employee needs to be contracted and notified that the device is being removed. If this person is not contacted, only the supervisors or the safety representative will have the authority of removing the device(s). The authorized employee who applied the Lockout/Tagout devices shall be notified that his or her devices were removed when he or she returns to the work area. This shall include documentation of such removal.

Hearing Protection:

- 1. The NECA shall make ANSI approved hearing protectors available to all employees at no cost. Employees exposed to an eight (8) hour time weighted average of 85 decibels or greater are required to use hearing protection. Hearing protection shall be replaced as necessary.
- 2. Protection against the effects of noise exposure shall be provided when the sound levels exceed those shown in the table when measured on the A scale of a standard sound level meter at slow response.
- 3. When employees are subjected to sound levels exceeding those listed in the table, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the levels of the table, personal protective equipment shall be provided and used to reduce sound levels within the levels of the table.

Permissible Noise Exposure:	
Duration Per Day (hours)	Sound Level dBA slow
	response
8	90
6	92
4	95
3	97
2	100
$1 - \frac{1}{2}$	102
1	105
1/2	 110
1/4 or less	115

4. Any machine that creates excessive noise shall be equipped with mufflers.

<u>Equipment</u>

The following inspections shall be made before any equipment/vehicle is operated. Each assigned equipment must have.

- A. A fire extinguisher in good working condition with unbroken seal.
- B. An operating horn.
- C. Operating brakes, operating headlights lights, directional lights, and beacon if the equipment is equipped with such devices.
- D. A working back up alarm (if equipped).
- E. Scat belts.

If any of the above items are not present or not in working order the vehicle shall not be operated until repairs are made. The supervisor shall be notified immediately of any discrepancies.

All rubber tire heavy equipment shall be escorted by a company vehicle with flashers and beacon when traveling on any public roadway.

Job Site Safety

- A. The use of cellular phones (except in an emergency situation), MP3 players, iPods or other devices that may distract an employee is prohibited on any jobsite unless it is job related. At which time the employee shall go to the nearest safe spot to complete the call.
- B. Be constantly alert.
- C. Stand in the clear where the operator can see you.
- D. Stay out from under heavy loads and away from equipment travel patterns.
- E. No passenger is allowed to be with the operator on any moving equipment.
- F. Do not measure work, oil, verify quantity or adjust equipment while it is in motion.
- G. Do not speed when driving heavy equipment.
- H. No improper parking.
- I. Ground all the moving parts when not operating.
- J. All motor vehicles must be parked out and away from the work area.
- K. Foreman, grade-checker and anyone arriving at the heavy construction site must wear the required personal protective equipment.

Air Compressors

- A. Employees shall wear safety-toed shoes or metal toe guards when operating pneumatic tampers, jackhammers, or spades.
- B. Eye protection shall be worn when employees are operating pavement breakers, chippers, concrete saws, buffers or grinders.
- C. At no time during its operation shall an employee point a portable tool at anyone.
- D. Loose or bulky clothing shall not be worn when operating portable air drills, reamers, hammers, tampers, etc.
- E. Tools shall be kept in good condition with all bits correctly grounded.
- F. All cutting air tools should be returned to the shop for grinding.

- G. Employee shall verify that safety set screws are installed and maintained on all shaft collars. All shaft collars shall be kept tight while the machine is operating or when it is being carried to and from the job.
- H. The hose and all connections attached to compressed air equipment shall be checked for defects, wear, and loose connections before they are used. The nozzle on the air hose shall be under control before the air pressure is turned on. Serious injuries can result from the whipping action of a nozzle that gets out of control.
- I. All outgoing hoses from the compressor and tools/equipment shall have a whip check and safety pins in place prior to use.
- J. When an air hammer is not to be used for an extended period, the air shall be shut off at the compressor and the pressure released at the hammer.
- K. Dust respirator should be worn when operating an air compressor. If the operation requires the use of dust suppression, the Safety Officer shall determine the type of respirator required.
- L. Two (2) employees shall be present when air compressors are in use.
- M. Ear protection shall be provided for and used by those employees working around air compressors.
- N. Compressed air used for blowing or cleaning parts shall be regulated down to no more than 30 psi.
 - SEE ALSO, pages 41 and 42 on Pneumatic Tools

Crane Safety

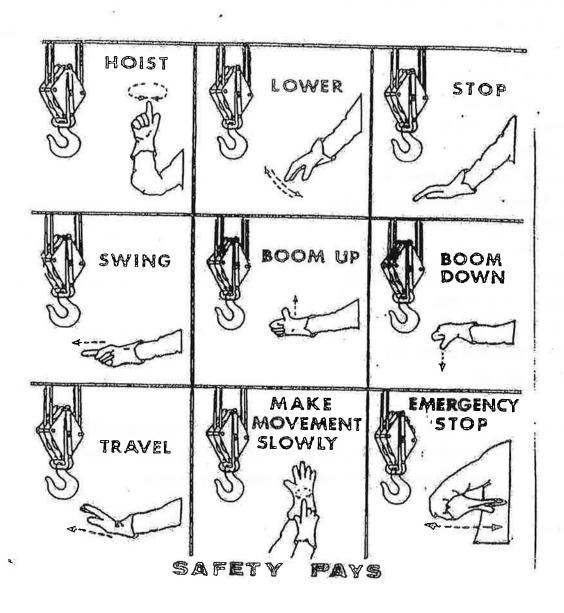
The following rules must be followed when working around cranes;

- A. Only authorized employees will be allowed to operate all crane or hoisting devices on any NECA premises.
- B. All crane operators must have an updated Crane Operator's certification or license in possession while operating the crane.
- C. Rated load capacities and special warning or instructions shall be conspicuously posted on all cranes. These instructions or warnings shall be visible to the operator while he is at his control stations.
- D. Each crane shall be inspected before each use and all needed repairs shall be made prior to use. The qualified operator, with his immediate supervisor, shall make the inspection before making the first pick. The Equipment Manager shall provide all necessary checklist/inspection forms.
 - 1. Check slings, hooks and shackles for condition. DESTROY all slings that are kinked and frayed. If three (3) wires are broken in one strand or six (6) wires in one rope lay then destroy it. DESTROY all hooks and shackles that are distorted or that are worn more than 20% in a critical area.
 - 2. Replace any cable that has been kinked or has visible damage.
 - 3. Replace worn or rusty hoist and boom cables. Cables should be replaced if the wear on outer wires is 25% of the diameter or if three (3) wires are broken on one strand or six (6) wires in one rope lay.
- E. Give proper consideration to positioning the crane. Decisions regarding positioning are always the certified operator's responsibility.
- F. Cranes must be located so that no part of the rig can come within 10 feet of any energized power line, or as required by law.

Appendix I

- G. When it is necessary to work in close proximity to power lines, consideration should be given to minimize the hazards by:
 - 1. Having lines moved or de-energized.
 - 2. Using boom insulator, insulated hooks, or other safety devices.
 - 3. Use standard crane signals given by only one person. The signalman must remain visible to the operator and provide signals through completion of the picking cycle
- H. Never add extra counterweight or tie down the back of the crane. This overloads component parts, and while damage may not be apparent; eventually something will fail.
- I. The operator shall never leave the cab with the load SUSPENDED and NEVER LEAVE the crane cab when the crane engine is running.
- J. The certified operator and immediate supervisor must take all of the preceding safety into consideration while preparing a Job Hazard Analysis (JHA) for each crane set up and pick. Each JHA must be reviewed by all of the employees that are involved during the pick. No crane setup or hoisting is allowed without a specific JHA and pre-pick meeting. The pre-pick meeting is to inform all personnel involved about the specific JHA.

CRANE SIGNALS



SAFETY PAYS

CRANE INSPECTION FORM

			ACCEPT	REJECT	REMARKS	
(A)	Deformed, c	racked or corroded members				
(B)	Loose bolts of	or rivets		3		
(C)	Cracked or v	vorn sheaves and drums		4450er = 355		
(D)	Worn, cracke	ed or distorted parts	<u> </u>			
	(Pins, bearing	gs, shafts, gears, rollers, etc.)				
(E)	Excessive we	ear on brake system parts,			71-14-14	
	linings, pawl	s, and ratchets				
(F)	Load, wind a	and other indicators over	-	<u></u>	***************************************	
	their full rang	ge for significant inaccuracies				
(G)	Gasoline, die	sel, electric or other				
	power plants	for improper performance				
(H)	Excessive wear of chain drive sprockets			1		
	and excessive chain stretch					
(I)	Crane hooks	(magnetic particle or other		P	35 24. 100 100 100 100 100 100 100 100 100 10	
	suitable crack	detecting methods)				
(J)	Electrical app	paratus				
	NOTE: Any unsafe conditions disclosed by the inspection requirements of this					
		procedure shall be corrected before operation of the crane is resumed.				
		Qualified personnel shall make all corre	ctions and repairs.			
Sin	mature:		Datas		- (m)mm)	
Sig	mature;		Date:		-0 850	

Motor Vehicles

- A. No employee is allowed to ride in the bed of the pickup truck.
- B. The parking brake must be set whenever the vehicle is parked.
- C. No employee is permitted to ride on loads, fenders, running boards or tailgates
- D. Drivers must not move vehicles until riders comply with all safety precautions adhered to and all passengers are properly situated in the cab of the vehicle.
- E. All NECA vehicles that are smaller than a two ton truck will reverse into parking spaces. All company vehicles will honk their horn twice before moving in reverse. All company vehicles will honk their horn once before moving forward.
- F. All employees on the work site are to walk around their entire vehicle before entering,
- G. All vehicles will be parked away from the work area and hazards.
- H. All employees operating a NECA company vehicle must possess a valid driver's license and adhere to NECA's Vehicle Operator's Policy Manual.
- I. Any traffic violation causing an accident shall result in immediate termination

Transport Trucks - 2 Ton and above, including trailers

Supervisors are responsible for going over specific hazards on every job with their truck drivers. All NECA drivers must conform to the safe driving precautions listed below

- A. Know the local, state and federal traffic rules and regulations. Comply fully. Any traffic violation causing an accident shall result in immediate termination.
- B. Be familiar with the operation of the truck assigned to you. Know what it can do and cannot do.
- C. Keep your vehicle mechanically sound. Report unsafe conditions and have them corrected at once.
- D. Be considerate and use common sense with respect to the protection and rights of other drivers and pedestrians.
- E. When mechanical trouble develops and you must stop on the side of the road. Put up warning devices immediately in accordance with regulations.
- F. Adapt vehicle speed to weather, road conditions, traffic and visibility. Never exceed posted speed limits.
- G. Stop at <u>STOP</u> signs and signals. Rolling stops are not permitted and will result in disciplinary action.
- H. Stay alert; Keep your eyes on the road ahead and moving from right to left, so you are aware of traffic approaching on side roads. When you are uncertain of a driver's intentions, slow down.
- I. **REPORT ALL ACCIDENTS IMMEDIATELY.** Failure to do so will result in termination. Use accident forms located in glove box.
- J. Have current CDL license and medical card in possession while operating.
- K. The parking brake must be set whenever the vehicle is parked. Vehicles parked on an incline must have the wheels chocked.
- L. See Safety Department Manager for Commercial Drivers Policy

Hand-Held Cell Phones While Driving or Operating any Company Vehicle and Equipment Policy

NECA will not tolerate texting or talking on any (personal or company issued) hand-held cellular phone while operating any company issued vehicle or equipment. This includes, but is not limited to, answering or making phone calls, engaging in phone conversations, reading or responding to e-mails and text messages.

The following are recommendations to eliminate the use of cellular phones while operating any company issued vehicle or equipment:

- A. Turn cell phones off or put on silent or vibrate before starting the vehicle.
- B. Pull over to a safe place if a call must be made or received while on the road.
- C. Modify voice mail greeting to indicate that you are unavailable to answer calls or return messages while driving.
- D. Inform clients, associates and business partners of this policy as an explanation of why calls may not be returned immediately.

NECA is concerned about the safety of its employees. It is our goal that if we lead by example, the practice of no texting or talking on hand-held cell phones while behind the wheel will spread throughout the community.

Violation of this policy will result in immediate disciplinary action, up to and including termination.

Excavation and Trenching

Navajo Engineering and Construction Authority's (NECA) written Trenching & Excavation Program is designed for all excavation employees. It is the policy of NECA to permit only trained and authorized personnel to create or work in excavations.

The Safety Department is responsible for developing and maintaining the written Trenching & Excavation Program. This program is administered under the direction of the Safety Manager or designated person(s).

Before Excavating

Before any excavating begins, the following steps shall be followed:

- A. Mark the proposed excavation site or route with white flags.
- B. Contact the state's 811 Center to request a utilities locate. Documentation of this request shall be on site at all times throughout the duration of the project site.
- C. Contact the utility companies or property owners and request companies or owners find the exact location of the underground installations in the area.

- D. If the utility companies or owners do not respond within 48 hours, or the period established by law or ordinance, or if they cannot establish the location of the utility lines, the excavation may proceed with caution.
- E. Remove, or adequately support, the following objects buildings, trees, rocks, and sidewalks in the excavation area that could create a hazard to employees.
- F. Using Appendix A to 29 CFR 1926, Subpart P, classify the type of soil and rock deposits at the site as either stable rock, Type A, Type B, or Type C soil. The soil classification is based on the results of at least one visual and at least one manual analysis conducted by a competent person. Details of the acceptable visual and manual analyses are to be found in Appendix A of 29 CFR 1926, Subpart P.
- G. NOTE: Soil classification is not necessary if the excavation will be sloped to an angle of one and one-half horizontal to one vertical.
- H. Have the competent person choose the appropriate method for protective support systems, as necessary. See the Protective Support Systems section for the procedures used for selecting this system.

Soil Classifications

- A. <u>Stable Rock</u> refers to natural solid mineral matter which can be excavated with vertical sides and remain intact while exposed. Stable rock can be excavated at vertical slope (90°)
- B. Type A Soil is cohesive with an unconfined compressive strength of 1.5 tons per square foot (tsf). Type A soils include clay, silty clay, sandy clay, clay loam, caliche, hardpan, and sometimes-silty clay loam and sandy clay loam. No soil should be classified as Type A if it is fissured; subject to vibration from traffic, pile driving, or similar effects; previously disturbed; or part of a sloped, layered system where the slope is four horizontal to one vertical or greater. This type of soil shall be sloped or benched at 3/4H: 1V (53°).
- C. Type B Soil is cohesive soil with an unconfined compressive strength greater than .5 tsf but less than 1.5 tsf. Type B soils include granular cohesion less soils like angular gravel, silt, silt loam, sandy loam, and sometimes silty clay loam and sandy clay loam; previously disturbed soils that are not Type C fissured soils and soils subject to vibration that would otherwise be classified as Type A; dry rock that is not stable; and material that is part of a sloped, layered system where the layers dip on a slope less steep than four horizontal to one vertical. This type of soil shall be sloped or benched at 1H: 1V (45°).
- D. TYPE C SOIL is cohesive soil with an unconfined compressive strength of .5 tsf or less. Type C soils include granular soils such as gravel, sand, and loamy sand; submerged soil; soil from which water is freely seeping; submerged rock that is not stable; or material in a sloped, layered system where the layers dip into the excavation at a slope of four horizontal to one vertical or steeper. This type of soil shall be sloped at 1 1/2H: 1V (34°). No benching is allowed in this type of soil.

Protective Support Systems

NECA will protect each employee from cave-ins during an excavation by an adequate protective system designed in accordance with the Occupational Safety & Health Administration (OSHA) standards, as adopted by the Navajo Safety and Health Administration.

NECA has standard operating procedures regarding protective support systems for excavations which are in accordance with safe practices and procedures and OSHA excavation regulations, as adopted by the Navajo Safety and Health Administration.

Protective systems for use in excavations more than 20 feet in depth must be designed by a registered professional engineer, as adopted by the Navajo Safety and Health Administration.

General Requirements for Excavations

The following rules are to be followed at all times by all employees working on, in, or near excavations, as applicable:

- A. All employees on all excavation projects shall wear warning vests or other suitable garments made of reflectorized or high-visibility material.
- B. All excavations must be sloped to the angle of maximum allowable slope, based on the soil type.
- C. Trenches four (4) feet or deeper must be shored, sloped or benched to the angle of maximum allowable slope or as conditions warrant.
- D. A warning system shall be used to alert operators of heavy equipment and other employees at the work site of the edge of an excavation.
- E. Adequate protection shall be provided to protect employees from falling rock, soil, or other materials and equipment. Protection is provided by placing and keeping such materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.
- F. Where equipment operates near excavations or trenches, the sides of the excavation must be shored or braced as necessary to withstand forces exerted by the superimposed load. Stop logs or other secure barricades, at least half the height of the largest machine's tire, must be installed at the edges of such excavations.
- G. Materials used for sheeting, shoring or bracing must be in good condition.
- H. Employees are not permitted under loads that are handled by lifting or digging equipment.
- I. Employees are not allowed to work in the excavation above other employees unless the lower level employees are adequately protected.
- J. While the excavation is open, underground installations are protected, supported, or removed as necessary, to safeguard employees. Adjacent structures are supported to prevent possible collapse.

- K. Employees are not permitted to work in excavations where water has accumulated or is accumulating unless adequate precautions have been taken. Diversion ditches, dikes, or other means are used to prevent surface water from entering an excavation and to provide drainage to the adjacent area.
- L. Sufficient means for exiting excavations 4 feet deep or more are provided, and are within 25 feet of lateral travel for employees.
- M. Guardrails are provided if there are walkways or bridges crossing over an excavation.
- N. Any open trench, manhole, floor opening or like hazard shall be barricaded so that employees and members of the public cannot fall into them.
- O. Any open trench, manhole, and floor opening or like hazard exposed 3 days or more shall be barricaded so that employees and members of the public cannot fall into them in accordance with the Traffic Control Policy.

Inspection Procedures

- A. Before any employee enters an excavation greater than 4 feet in depth, the competent person shall test the atmosphere where oxygen deficiency or a hazardous atmosphere exists or could reasonably exist (i.e., excavations in landfill areas or excavations in areas where hazardous substances are stored nearby). Emergency rescue equipment shall be readily available and attended when hazardous atmospheric conditions exist or may develop.
- B. The competent person shall inspect the excavation and the adjacent areas on a daily basis for possible cave-ins, failure of protective systems and equipment, hazardous atmospheres or other hazardous conditions. Inspections are also required after the occurrence of any natural (such as rain) or man-made events (such as blasting) that could increase the potential for hazards. Employees may not begin work until after being informed by the competent person that these inspections are complete.
- C. A NECA Competent Person shall inspect excavations daily and during poor weather or when circumstances change. The NECA inspection checklist is included in this policy.

Training

The Program Administrator and supervisor will identify all employees who need either Competent Person Training (8 Hours) or Employee Awareness Training (2 Hours Minimum). Training records of attendees shall be kept on file in the NECA Safety Department for a period of five (5) years.

For employees who don't work in or around excavations but who may become bystanders, NECA require that they attend an Awareness Training.

Updated trainings shall be done every two (2) years or as necessary. Failure to adhere to this section will result in immediate disciplinary action, up to and including termination.

Blasting and the Use of Explosives

General Provisions

Whenever NECA is working with explosives the following policy shall apply and adhered to by all affected employees.

The RESPONSIBLE PERSON directs the management and policies of the applicant pertaining to explosive materials. The Responsible Person is responsible for the purchase of all explosive materials. When necessary, the Responsible Person may request the vendor to deliver the explosives to the jobsite. Technical assistance from outside sources may be requested or needed for larger and more difficult shots.

The POSSESSOR (Blaster) is responsible for the physical inventory and inspections of all explosive materials. The Possessor will determine which explosives are in good condition and safe to keep and which explosives need to be removed and discarded.

- A. NECA shall permit only authorized and qualified persons to handle and use explosives.
- B. The blaster-in-charge and loading crew shall inspect the blast site before loading begins.
- C. The blast site shall be clearly marked and all non-essential equipment and people shall not be allowed on the blast site once the hole loading begins, or be no less than 50 feet from a loaded hole.
- D. Smoking, firearms, matches, open flame lamps, and other fires, flame of heat producing devices and sparks shall be prohibited in or near explosive magazines or while explosives are being handled, transported or used.
- E. No person shall be allowed to handle or use explosives while under the influence of intoxicating liquors, narcotics, or other dangerous drugs.
- F. All explosives shall be accounted for at all times. Explosives not being used shall be kept in a locked magazine, unavailable to persons not authorized to handle them. The employer shall maintain an inventory and use record of all explosives. Appropriate authorities shall be notified of any loss, theft, or unauthorized entry into a magazine.
- G. No explosives or blasting agents shall be abandoned.
- H. No fire shall be fought where the fire is in imminent danger of contact with explosives. All employees shall be removed to a safe area, 2,500 feet away.
- I. Original containers, or Class II magazines, shall be used for taking detonators and other explosives from storage magazines to the blasting area.
- J. When blasting is done in congested areas or in proximity to structure, railway, or highways, or any other installation that may be damaged, the blaster shall take special precautions in the loading, delaying, initiation, and confinement of each blast with mats or other methods so as to control the throw of fragments, and thus prevent bodily injury to employees.
- K. Employees authorized to prepare explosive charges or conduct blasting operations shall use every reasonable precaution including, but not limited to,

- visual and audible warning signals, flags, or barricades, to ensure employee safety.
- L. Insofar as possible, blasting operations above ground shall be conducted between sunup and sundown.
- M. Due precautions shall be taken to prevent accidental discharge of electric blasting caps from current induced by radar, radio transmitters, lightning, adjacent power lines, dust storms, or other sources of unrelated electricity. These precautions shall include:
 - 1. Detonators shall be short circuited in holes which have been primed and shunted until wired into the blasting circuit.
 - 2. The suspension of all blasting operations and removal of persons from the blasting area during the approach and progress of and electric storm;
 - 3. The prominent display of adequate signs, warning against the use of mobile radio transmitters, on all roads within 1,000 feet of blasting operations
 - 4. Ensuring that mobile radio transmitters which are less than 100 feet away from the blasting shall be off.
 - 5. Empty boxes and paper and fiber packing materials, which have previously contained high explosives shall not be used again for any purpose, but shall be destroyed by burning at an approved location
 - 6. Explosives, blasting agents, and blasting supplies at are obviously deteriorated or damaged shall not be used.
 - 7. Blasting operations in the proximity of overhead power lines, communication lines, utility services, or other services and structures shall not be carried on until the operators and/or owners have been notified and measures for safe control have been taken.

Blaster Qualification

The blaster shall be responsible for all blasting activities and shall have final says to such activities. All employees on sites of blasting activities or handling any explosives shall be under the direct supervision of the blaster.

- A. The blaster shall be able to understand and give written and oral orders.
- B. The blaster shall be in good physical condition and not be addicted to narcotics, intoxicants, or similar types of drugs.
- C. The blaster shall be qualified, by reason of training, knowledge, or experience, in the field of transporting, storing, handling, and use of explosives, and have a working knowledge of state and local laws and regulations which pertain to explosives.
- D. Any person performing blasting activities must have a valid, current blasters certificate acceptable by the United States Department of Justice Bureau of Alcohol, Tobacco, Firearms and Explosives.
- E. The blaster certification shall be carried by the blaster or shall be on file at the office or at the blasting area during the blasting operation.
- F. Only those individuals listed as RESPONSIBLE PERSONS and EMPLOYEE POSSESSORS with a background clearance status of 'CLEARED' are

authorized to transport, ship, receive, or possess explosive materials in the course of employment with NECA.

Planning

A request for blasting will be done in writing and addressed to the Possessor.

- A. The request will be made by the Supervisor of the Foreman or Management. The request will include the name of the Foreman, Job Number, location of area in request, and the approximate date the blasting will commence.
- B. The Possessor will do a Preliminary Site Assessment.
- C. The Possessor will create a Blasting Plan that will be reviewed and followed by the individuals involved on the day of the blasting.
- D. The Possessor will do a Post Site Assessment.
- E. Each Assessment will include photographs, diagrams and distances from the blast area to homes, utilities and highways.

Types of magazines

- A. Type 1 magazine. Permanent magazines of the storage of high explosive
- B. Type 2 magazines. Mobile and portable indoor and outdoor magazines for the storage of high explosives.
- C. Type 3 magazines. Portable outdoor magazines for the temporary storage of high explosives while attended (for example, a "day-box"), subject to the limitations.
- D. Type 4 magazines. Magazines for the storage of low explosives
- E. Type 5 magazines. Magazines for the storage of blasting agents

Smoking and Open Flames

Smoking, matches, open flames, and spark producing devices are not permitted:

- A. In any magazine
- B. Within 50 feet of any outdoor magazine
- C. Within any room containing an indoor magazine

<u>Misfires</u>

- A. An explosive charge or any part of an explosive charge that fails to detonate after initiation shall be considered a misfire.
- B. If a misfire occurs, the blaster shall note the location of the misfired explosive, and shall not approach the misfired explosive for at least one hour.
- C. Explosives which are aflame or emitting smoke shall not be approached for at least one hour after evidence of combustion ceases.
- D. The area shall remain guarded or closed until a search of the area has been done and the misfire hazard is removed, or the blaster-in-charge pronounces the area safe.
- E. Misfires shall be handled by the blaster-in-charge and only those employees necessary to remove the hazard and guard the area shall remain in the area.
- F. Impact to explosive materials shall be avoided when searching for non-visible misfired charges.

G. A misfired armed charge shall be disposed of where it is found with a secondary charge.

Transportation

Transportation of explosives, blasting agents, and blasting supplies on public highways shall be in accordance with the provisions of 1926.900, Subpart U.

Housekeeping

Magazines are to be kept clean, dry, and free of grit, paper, empty packages and containers, and rubbish. Floors are to be regularly swept. Brooms and other utensils used in cleaning and maintenance of magazines must have no spark-producing metal parts.

When any explosive material has deteriorated it is to be destroyed in accordance with the advice or instructions of the manufacturer.

The area surrounding magazines is to be kept clear of rubbish, brush, dry grass, or trees for not less than 25 feet in all directions.

Volatile (gas) materials are to be kept a distance of not less than 50 feet from outdoor magazines.

Living foliage which is used to stabilize the earthen covering of a magazine need not be removed.

Cleaning equipment shall not be stored or left in the explosive magazines.

Lighting

Only battery-activated safety lights or battery-activated safety lanterns may be used in explosives storage magazines.

Failure to adhere to this section will result in immediate disciplinary action, up to and including termination.

Housekeeping

Housekeeping is everyone's responsibility; therefore, all areas shall be maintained and kept free of hazards and debris. Good housekeeping prevents serious slips, trips, falls and the possibility of starting a fire. Each employee is responsible for;

- A. Wiping up spills immediately.
- B. Returning equipment after using it.
- C. Keeping cabinets used for storage closed.
- D. Disposing of trash and waste promptly.

Personal Protective Equipment

Required personal protective equipment in accordance to OSHA Standards will be provided by NECA at no cost to the employees. Hard-hats eye and face protection, safety belts, harnesses, lifelines, dust mask/respirators, and hearing protection shall be used by all employees whenever a hazard exists which warrants such use.

- A. <u>Hard-hat</u>: A head protection device to shield the worker's head from impact, flying particles, electric shock, overhead spills, and entanglement of hair in machinery.
 - 1. Hard hats are to be worn properly in the manner specifically intended (bill to the front), unless approved by the manufacturer.
 - 2. No bandanas, hoods, caps or hats of any types shall be worn under hard hats, unless approved by the manufacturer.
- B. Safety glasses, goggles, face shield: An eye protection device to shield the workers' eyes from flying objects, chemical splashes, harmful radiation, and dust.
 - 1. Safety glasses are used for work requiring only frontal protection.
 - Goggles and certain types of safety glasses are designed to provide frontal and peripheral shielding from flying objects. The proper dark or clear safety glasses shall be worn dependent of lighting. Dark glasses shall be removed when indoor.
 - 3. Face shield is used for work involving hazards that not only endanger eyesight but also may disfigure the face. As a rule, this type of face protection should be worn over basic eye protection device such as safety glasses or goggles.
 - 4. Welding helmet is used to protect the head and face from flying particles, hot metal, sparks, and intense radiant energy. It is equipped with filter lenses to protect the welder's eyes from harmful UV radiation.
- C. <u>Ear plug/foams</u>: Hearing protection devices shall be used by the affected employee to protect him/her from exposure to excessive noise levels which may cause permanent hearing loss.
- D. Respiratory Protection: Each worksite condition shall be evaluated by the affected supervisor and the Safety Officer to determine the proper selection of respiratory protection. Some tasks may require using of an N-95 respirator for various situations. Bandanas are not to be used in place of dust mask.
- E. <u>Belts, harnesses, and lifelines</u>: They are designed to be worn by workers in locations where there is danger of falling, or when the employee is exposed to a confined space with a hazardous atmosphere.
 - 1. Class I, body belts Restrict a worker to a particular area and aid in preventing falls.
 - 2. Class II, chest harnesses Allow freedom of movement where fall hazards is slight.
 - 3. Class III, body harnesses Used when movement at dangerous heights is necessary.
 - 4. Class IV, suspension belts Used where work cannot be performed from a fixed surface and the worker must be suspended entirely.
- F. Hand Protection: Gloves are the primary type of industrial hand protection from pinch points, sharp edges, and abrasive surfaces. A wide range of devices are available that offer specific protection against particular hazards such as temperature extremes, caustics, water, chemicals, electricity, and radiation.

- Every employee on a jobsite or designated area shall have a pair of gloves on when outside the cab of any vehicle or equipment. Gloves are required at all times and will be provided by NECA as a part of standard issued PPE.
- G. <u>Foot protection</u>: Safety toe shoes and boots are the types of footwear that protects the employee's feet from hazards such as compression and impact. Heavy materials, chemicals, temperature extremes, water, greases, static electricity, and molten metal are among the hazards that require protective footwear.
 - a. All employees on construction work sites shall wear durable slip resistant and at least, ankle length leather work boots with soles that are resistant to nails or penetrating objects.
 - b. All employees operating or working near compaction equipment are required to wear either steel toed safety boots or metatarsal protection equipment.
- H. Miscellaneous equipment: Life jacket or buoyant work vest (U.S. Coast Guard approved) shall be worn by employees working over or near water, or where the danger of drowning exists. Ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. At least one life saving boat shall be immediately available at locations where employees are working over water.
- I. NECA is not required to pay for: Everyday clothing, such as long-sleeve shirts, long pants, street shoes, and normal work boots; or ordinary clothing, skin creams, or other items, used solely for protection from weather, such as winter coats, jackets, gloves, parkas, rubber boots, hats, raincoats, ordinary sunglasses, and sunscreen.
- J. Any personal protective equipment that is purchased by an employee must meet the requirements for the job at hand. Any PPE that is purchased must first be inspected by the immediate supervisor or Program Administrator to assure the equipment is adequate for the work to be conducted. Employees will be shown the proper maintenance and cleaning of the equipment by the Program Administrator or designee.
- K. NECA is not responsible to replace any employee purchased PPE. The supervisor has the final decision in allowing the employee to utilize an acceptable employee purchased PPE.
- L. NECA will only replace company issued PPE, except when the employee has lost or intentionally damaged the PPE.

Violation of this policy will result in immediate disciplinary action, up to and including termination.

<u>Scaffolding</u>

Employees working on scaffolds shall be made aware of the hazards associated with scaffolds. The two basic safety hazards are falls and injuries from falling objects. These steps are to be followed:

A. Each scaffold must be inspected, approved, and erected by a competent person prior to initial use, and at the beginning of every shift.

- B. If alterations are made, the entire system must be inspected, approved, and erected by a competent person
- C. Scaffolds and their components shall be capable of supporting without failure at least 4 times the maximum intended load. All planking shall be Scaffold Grades, or equivalent, Guardrails, mid-rails and toe boards must be installed on all open sides of scaffolds that are more than six feet in height, or on any scaffold less than 48 inches wide.
- D. Guardrails, mid-rails and toe boards should be constructed from components furnished by the manufacturer. Where this is not possible, use 2 x 4 inch lumber for the guardrails and 1 x 4 inch lumber for the mid-rails and toe boards.
- E. Scaffold planks must be clear and must extend beyond the end supports at least six inches, but not more than 12 inches.
- F. All scaffolds must be fully planked. No employee may work from a single plank.
- G. Scaffold planks must be visually inspected before each use. Damaged scaffold planks must be DESTROYED immediately.
- H. Do not overload scaffolds. Materials should be brought up as needed and removed when the work or task is completed.

Rolling Scaffolds

Riding rolling scaffolds is prohibited.

Underground Utilities

The Navajo Nation, Federal and State laws require that the owners, of any and all underground utilities (water, sewer, gas or oil, telephone or electrical) be notified prior to excavation in any area. The Safety Department shall be notified of any gas line crossing prior to excavating. This will offer the owner of the utilities an opportunity to locate them for your safety and convenience to prevent any damage. Notify anyone and everyone whom you even remotely (i.e., NTUA, Frontier, etc.) suspect may have underground utilities in any area before you dig. Make a note of the date, time, means of communications, and above all, the name of the person you spoke to. Damaging underground utilities is a dangerous and hazardous task, which is expensive and for the most part, unnecessary.

Prior to any excavation, an up-to-date One Call shall be in place and on site. If you should happen to break or damage a utility line notify the owner immediately or call Base 5 for assistance in contacting the owner.

If you should cause a gas pipeline break you should do the following:

- A. Immediately shut off the equipment.
- B. Abandon equipment.
- C. Leave the area quickly.
- D. Warn others.
- E. Seek the aid of local authorities.
- F. Notify the pipeline owner or call Base 5 for assistance in contacting the owner.

From the moment of the break, the action the superintendent/foreman takes will determine the outcome of the accident.

Fall Protection

To prevent employees from falling off, onto, or through working levels and to protect employees from being struck by falling objects, the following systems and procedures shall be followed;

The foreman will assess the workplace to determine if the walking and working surface on which employees are to work have the strength and structural integrity to support workers safely. Employees are not permitted to work on those surfaces until it is determine the surface have the requisite strength and structural integrity to support them.

Once the foreman determined that the surface is safe for employees to work on, he must select one of the options listed below for the work operation 6 feet or more above lower level;

- A. Guard Rails Systems
- B. Safety Net Systems
- C. Personal Fall Arrest Systems

When working with fall protection, NECA requires that the affected employee utilize 100% tie-off.

If <u>Guardrails Systems</u> are used the top edge height of the rails must be 42 inches plus or minus 3 inches above the walking/working level. If wire rope is used as guardrail it must be one-quarter inch nominal diameter or thickness and be flagged at not more than 6 feet intervals with high – visibility material.

Covers or guardrail systems shall be erected around holes. Guardrails are not to be used as an anchor for personal fall arrest systems.

If <u>Safety Net Systems</u> are used the nets must be installed as close as practicable under the walking/working surface on which employees are working and never more than 30 feet below such levels.

Safety nets shall be inspected at least once a week for wear, damage and other deterioration. Defective nets shall not be used.

Safety nets shall be installed with sufficient clearance underneath to prevent contact with the surface or structure below.

If Personal <u>Fall Arrest Systems</u> are used the anchorage shall be designed, installed, and used under the direction of a competent person. Anchorage used to attach personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms.

Positioning device systems are full body harness systems. They are to set up so that workers can free fall no farther than 2 feet. They shall be secured to an anchorage capable of supporting at least twice the potential impact load. Snap hooks, dee-rings and other connectors used with positioning devices systems must be inspected before each use. Any defective items must be put out of service immediately.

Non-locking snap hooks shall not be used for fall arrest systems.

Appendix I

Body belts for fall arrest systems shall not be used.

Lifeline shall be protected against being cut or abraded. A self-retracting lifelines and lanyards that automatically limit free fall distance to two feet or less should be used. Lanyards and vertical lifelines must be free of cuts or knots. Any defective lifeline must be put out of service immediately.

To protect employees working below from falling objects excess mortar, broken or scattered masonry units and all other materials and debris shall be kept clear of the working area by removal at regular intervals.

Only employees engaged in the construction will be authorized in the walking/working zone except those inspecting, investigating, or assessing workplace condition prior to the actual start of work or after all work has been completed.

Employees will be trained in the proper selection, use and maintenance protection systems. The safety department will prepare a written Hazard Training Certification that identifies the employee trained and the date of training. The employee and trainer must sign the certification record.

Work Zone Traffic Control

The most current edition of the *Manual on Uniform Traffic Control Devices*, (MUTCD) shall be followed on all highway/road construction, utility work, maintenance operations, and the management of traffic incidents.

Temporary Traffic Control (TTC) shall be an integral and high-priority element of every project from planning through design and construction. The primary function of TTC is to move vehicles and pedestrians safely and expeditiously through or around work zones while protecting on-site workers and equipment.

A Temporary Traffic Control Plan shall be prepared and understood by all responsible parties before a worksite is occupied.

A certified Traffic Control Supervisor (TCS) shall be assigned to all aspects of traffic control management and supervision. The TCS shall have a set of traffic control plans and a current copy of the MUTCD readily available at all times. The TCS shall maintain and sign a project traffic control diary. The TCS shall have in their possession at all times, a valid driver's license, valid ID, and TCS certification card.

A TCS shall only assign a certified Traffic Control Technician (TCT) to assist with the placement, inspection and maintenance of traffic control signs and devices. All other non-certified personnel are prohibited from such duties. A TCS shall be readily available within one hour of work zone should a TCT need the assistance of a TCS. The TCT shall have in their possession at all times, a valid driver's license, valid ID, and TCS certification card.

Good public relations shall be maintained. Road user movements shall be inhibited as little as practical. Motorist, bicyclists and pedestrians should be guided in a clear and positive manner.

Flagging

Because flagging is one of the most hazardous activities on the roadway, each person assigned to this task shall be adequately trained and certified. The TCS or TCT shall make sure each flagger has in their possession at all times, a valid ID and traffic control flagger certification card.

Exemptions: Personnel that have not completed a flagger-training course may be assigned duties as flagger only during emergencies. Emergency assignments are temporary and last only until a certified flagger can be put into that position.

Flaggers should be able to satisfactorily demonstrate the following abilities:

- A. Ability to receive and communicate specific instructions clearly, firmly and courteously.
- B. Ability to move and maneuver quickly in order to avoid danger from errant vehicles.
- C. Ability to control signaling devices (such as paddles and flags) in order to provide clear and positive guidance to drivers.
- D. Ability to understand and apply safe traffic control practices, sometimes in stressful or emergency situations.
- E. Ability to recognize dangerous traffic situations and warn workers in sufficient time to avoid injury.

To distinguish between the Flaggers and other employees on any worksite:

- A. Flaggers shall utilize Class 2 fluorescent yellow-green safety vest.
- B. All non-traffic control personal shall wear Class 2 fluorescent orange-red safety apparel.

For the purpose of nighttime flagging, hours of darkness means one-half hour before sunset to one-half hour after sunrise. Nighttime flaggers shall wear a combination of Class 3 fluorescent yellow-green safety vest and pant. Flagger stations shall be illuminated, except in emergencies.

Flagger stations shall be located such that approaching road users will have sufficient sight distance so as to stop at the intended stopping point. Except in emergency situations, flagger stations shall be preceded by Advanced Warning Signs.

Flaggers shall face their traffic at all times. Position flaggers so they are not exposed to traffic or equipment approaching from behind.

Flaggers shall stand alone, away from other workers, work vehicles, or equipment. Flaggers shall be clearly visible to the first approaching road user at all times.

Appendix I

The use of cellular phones, Mp3 players, iPods, tablets or other similar devices shall not be utilized while performing flagman operations. Flaggers shall be issued a hand-held radio as needed. Hand-held radios should be able to transmit a signal at least one mile with decent to clear communication.

Exemptions: Cellular phones may only be utilized for emergency communications only.

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Hand-signaling devices (Figure 6E-3)

The STOP/SLOW paddle shall be the primary and preferred hand-held signaling device because paddles give road users more positive guidance than orange flags. Paddles shall be at least 18 inches wide with letters at least 6 inches high.

The use of orange flags shall be limited to emergency situations only. Flags, when used, shall be a minimum of 24 inches square and securely fastened to a staff approximately 36 inches in length.

For nighttime flagging, the STOP/SLOW paddle or flag shall be retro-reflectorized.

Flaggers may use a wand in an emergency situation to supplement the STOP/SLOW paddle or flag.

Figure 6E-3. Use of Hand-Signaling Devices by Flaggers **EMERGENCY SITUATIONS ONLY** PREFERRED METHOD STOP/SLOW Paddle **Red Flag** 18 inches 36 inches 24 inches 24 inches TO STOP TRAFFIC W20-8 TO LET TRAFFIC PROCEED W20-8 TO ALERT AND **SLOW TRAFFIC**

Traffic Control Devices

Traffic control devices such as signs, vertical panels, barricades, arrow boards, drums, cones and other similar devices shall be used when workers and/or equipment are exposed to vehicular traffic.

Advanced warning signs

Advanced warning signs shall be utilized to warn and alert drivers of hazards created by construction, maintenance or utility activates on or within highway right of way.

Advanced warning signs shall be placed on the right-hand side of the road unless otherwise provided by the MUTCD manual.

Signs shall be maintained for cleanliness, visibility and correct positioning. Signs that have lost significant legibility shall be promptly replaced.

Sign spacing shall follow Table 6C-1 below. 500 feet spacing is generally appropriate for rural roads.

Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs**			
	A	В	C	
Urban (low speed)*	100 feet	100 feat	100 leek	
Urban (hìgh speed)*	950 feet	350 feet	350 feet	
Pluret	500 feet	500 feet	600 teet	
Expressionly / Freeway	1,000 1 eet	1,500 feet	2.640 fee	

Speed category to be determined by the highway agency.
The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-66. The A dimension is the distance from the transition or point of respection to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The first sign is the sign in a three-sign series that is closest to the TTC zone.)

<u>Ground-mounted sign</u> installation shall follow Figure 6F-1. Ground-mounted signs installed at the side of the road in <u>rural areas</u> shall be mounted at a height at least 5 feet, measured from the bottom of the sign to the near edge of the pavement.

All ground-mounted sign supports shall be crashworthy.

A - RURAL AREA

B - RURAL AREA WITH ADVISORY SPEED PLAQUE

C - BUSINESS, COMMERCIAL, OR RESIDENTIAL OR RESIDENTIAL AREA (WITHOUT CURB)

Figure 6F-1. Height and Lateral Location of Signs—Typical Installations

Signs mounted on <u>portable supports</u> (such as sign stands) shall be at least 1 foot above the traveled way (refer to Figure 6F-2). All portable supports shall be crashworthy. Any alterations made to portable supports that have not been successfully crash tested shall be considered "not crashworthy."

For <u>mobile operations</u>, a sign may be mounted on a work vehicle, a shadow vehicle or a trailer stationed in advance of the work zone or moving along side it.

Orange Fleg (optional) 1 ft MIN. above the traveled way 8 ft MIN. (see Section 6F.62) High-Level Warning **Device** (Flag Tree) 1 ft MiN. above the traveled way PORTABLE AND TEMPORARY MOUNTINGS Flasher (optional) BARRICADES

Figure 6F-2. Methods of Mounting Signs Other Than on Posts

Channelizing Devices

Channelizing devices include drums (orange barrels), vertical panels, cones, tubular markers, longitudinal channelizing devices and barricades. (See Figure 6F-7)

Channelizing devices provide for smooth and gradual vehicular traffic flow from one lane to another, onto a bypass or detour, or into a narrower traveled way. Channelizing devices are also used to channelize traffic away from work areas, pavement drop-offs, pedestrian paths, open trenches or opposing directions of traffic.

Channelizing devices shall be crashworthy.

Channelizing devices shall be kept clean, visible, and properly positioned at all times. Devices that are damaged or have lost significant amount of retro reflectivity and effectiveness shall be replaced.

Spacing between channelizing devices:

- A. For transition taper channelization, the spacing between devices shall not exceed 1.0 times the speed limit in mph.
- B. For tangent (centerline) channelization, the spacing between devices shall not exceed 2.0 times the speed in mph.
- C. For downstream taper channelization, the spacing between devices shall not exceed 2.0 times the speed in mph.

The maximum and minimum heights of channelizing devices shall follow Figure 6F-7.

Figure 6F-7. Channelizing Devices Retrotellective 18 inches MIN Facing band T 3 inches T 3 inches T 2 to 6 inches traffic 2 untres 28 inches T 3 inches MIN. 4 to 8 inches 36 inches MIN. Oay and low-speed roudway (5:40 mph) Night and/or freeway High-spood roadway (≥ 45 mph) DRUM **TUBULAR MARKERS** Retroreflective hand 4 to 6 inches 6 to 12 inches 3 to 4 inches Ti inches MIN. to 2 inches 36 inches MIN. Night and/or fromway High-speed roadway (2.45 mph) Day and low-spood roadway (≤ 40 mph) CONES **VERTICAL PANEL** B to 12 inches 8 to 12 inches 24 inches 36 inchos MIN linches Llin. MIN TYPE 1 BARRIÇADE ** TYPE 2 BARRICADE ** 8 to 12 inches 36 inches MIN. DIRECTION INDICATOR BARRICADE ** TYPE 3 BARRICADE **

^{*} Warning lights (optional)
** Rail stripe widths shall be 6 inches, except that 4-inch wide stripes may be used if rail lengths are less than 36 inches. The sittes of barricades facing traffic shall have retroreflective rail faces.

Before any new detour or temporary route is opened to traffic, all necessary signs shall be in place. All TTC devices shall be removed as soon as practical when they are no longer needed.

If there an approved Traffic Control Plan that adheres or is more stringent than the MUTCD Manual illustrations, that plan shall be followed.

Addition of Typical Application diagrams:

- A. Work beyond the Shoulder (TA-1)
- B. Work on the Shoulder (TA-3)
- C. Lane Closure on a Two-Lane Road using Flaggers (TA-10)
- D. Haul Road Crossing (TA-14)
- E. Short-Duration or Mobile Operations on a shoulder (TA-4)

Safety Meetings Topics

Please see Safety Meeting Topics in Appendix A.

Mechanical Shop Safety

Below is a list, at minimum, guidelines for the Mechanic Shop to be aware of but not limited to:

- A. Forced ventilation shall be provided for exhaust fumes and hose attachments shall be affixed to tailpipes.
- B. Ventilation fans shall be used during any welding operations inside buildings or as required in confined spaces. Oxygen tanks are not to be used in place of ventilation fans.
- C. Overhead doors shall be maintained on a regular basis to insure proper safe working condition.
- D. Housekeeping shall be kept up with at all times.
- E. Electrical cords and pneumatic hoses shall not be laid on the floor to present a tripping hazard.
- F. Oil, grease, etc., shall be cleaned up immediately when spilled.
- G. Fire extinguisher shall be located in a conspicuous location for easy access and
- H. Tires being installed on 2 piece rims shall be inflated only with the use of tire cages.
- I. Proper inflation of tires shall be pressurized at the manufacturer's specifications.
- J. Electrically powered tools shall be grounded.
- K. Stationary grinding wheels shall be secured to a table or floor.
 - 1. Worn wheels shall be replaced.
 - 2. Prior to use, grinding wheels shall be inspected for damage, wear, and in good working condition.
 - 3. Each affected employee utilizing a grinder shall protect their face and eyes with a face shield. A shield shall be maintained over the grinding wheel to control sparks.

L. The hooks and chains of the hoist shall be verified every three (3) months to insure the tag/certification is attached and legible. This shall be performed by the competent person.

Battery Storage

- A. Lead acid batteries shall be stored in a separate area and shall be marked: "DANGER: ACID". A suitable facility for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.
- B. When working with storage or storing batteries, employees shall wear rubber gloves and aprons to protect themselves from accidental spills and splashes.
- C. Suitable eye protection shall be worn when working with batteries.
- D. No smoking shall be permitted within buildings or storage areas where batteries are housed.
- E. The storage area for wet cells shall be well ventilated.
- F. A soda solution to a neutralize spill shall be stored in the general area where lead acid batteries.
- G. Initial charging and any work performed on batteries shall be in accordance with instructions set forth by the manufacturer's recommendations.
- H. Acid shall never be poured into water.
- I. Distilled water shall be stored in glass, plastic, or rubber containers.
- J. Battery connections should be clean, bright, and free of corrosion.
- K. An ABC extinguisher in working condition shall be located in the general area for fire control.
- L. Objects, especially metal shall never be placed on top or across cells.
- M. Gas escape holes in cell caps shall be open and clear. Caps shall never be cleaned while they are on the cell.
- N. Material should not be stored in front of batteries.
- O. A hanger should be provided for the rubber aprons and gloves.
- P. Cells shall not be over filled.
- Q. Plates shall always be kept covered with fluids to the waterline mark.
- R. A non-metallic flashlight shall be available for battery inspection.
- S. All battery connections should be tight to avoid sparking.
- T. All lists of these rules shall be posted by all wet cells.
- U. Only approved wrenches shall be used on battery connections.
- V. Pliers, channel lock pliers, pipe wrenches, etc., shall never be used.

Extension Cords

- A. Only approved commercial grade and inspected extension cords shall be used.
- B. Both the cord and the connection should be examined carefully before being used.
- C. Extension cords shall be suspended over aisles or working areas where possible in order to prevent tripping hazards.
- D. Extension cords shall not be hung over nails or other sharp edges nor shall they be kinked or left where a vehicle may run over them.
- E. Extension cords shall not be allowed to come in contact with oil, hot surfaces, or chemicals.

- F. An extension cord shall never have any defect in the insulation if so, it shall be replaced.
- G. Extension cords shall be stored in a clean, dry place where they can lie loosely coiled.
- H. The cord shall not be used as a line to raise or lower the tool from one elevation to another.

Stairways

- A. Stairways with four (4) steps or more shall have a handrail. This also applies to field living vans.
- B. Stairways more than 42 inches wide shall have two (2) handrails.
- C. Handrail shall be 42 inches high, \pm 3 inches.

Tools

Chains

- A. Care shall be taken not to overload a chain. All lifting chains shall have a load rating tag attached.
- B. The links of a chain under load are subjected to severe bending action when in contact with sharp corners or edges. Appropriate materials shall be used as a guard or weight-bearing surface to prevent nicking the chain.
- C. Employees shall not kink a chain in order to shorten it.
- D. When a load is to be lifted, the slack shall be taken up and the load started slowly and uniformly.
- E. A chain shall not be used if an inspection reveals a fracture, insecure weld, missing load rating tag, or other defects.
- F. Chains shall be stored in a dry area in order to prevent rusting.

Chain Saws

- A. Saws shall be stopped for re-fueling or servicing.
- B. Chain saws shall not be used in enclosed spaces.
- C. The blade shall be covered in a sheath when not in use.
- D. Only those employees having previous experience with a chain saw shall be allowed to operate the saw unless under the direct supervision of one having had experience.
- E. P.P.E. such as non-slip sole work shoes, gloves, safety glasses, face guard, chaps, and earplugs shall be utilized.
- F. No loose clothing shall be worn while operating a chain saw.

Electrical Hand Tools

- A. Tools shall be kept in safe condition, cleaned, oiled, and repaired.
- B. Electric hand tools shall be grounded when in use.
- C. Only approved and inspected extension cords shall be used.
- D. Both the cord and the connections should be examined carefully before being used.
- E. Extension cords shall be suspended over aisles or working areas where possible in order to prevent tripping hazards.

- F. Extension cords shall not be hung over nails or other sharp edges, shall not be kinked, or left where a vehicle may run over them.
- G. Extension cords shall never be allowed to come in contact with oil, hot surfaces, or chemicals.
- H. An extension cord shall never have any defect in the insulation if so, it shall be replaced.
- I. Goggles or a face shield shall be worn while using electric hand tools if there is any danger of flying particles.
- J. Pneumatic hand tools rather than electric ones shall be used in the presence of flammable vapors or gases.
- K. Extension cords shall be stored in a clean, dry place where they can lie loosely coiled.
- L. The flexible shaft of an electric hand tool shall never be allowed to form a loop as this will make a knot, jerking the tool out of the operator's hand.
- M. Goggles shall always be worn when using a portable grinder; the operator shall keep out of line with the wheel.
- N. Adequate respiratory protection shall be used when operating portable grinders or buffers on toxic material, such as lead, zinc, brass or paint.
- O. Loose clothing shall not be worn when work is being done with any portable electric tool.
- P. Nails or other objects shall not be inserted in the ventilating openings to stop the fan while tightening the chuck or performing any other operations.
- Q. Tools shall be handled carefully to avoid dropping them.
- R. The cord shall not be used as a line to raise or lower a tool from one elevation to another.
- S. Belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment shall be guarded if such parts are exposed to contact with employees or otherwise create a hazard.
- T. All hand held powered platen sanders, grinders with wheels two (2) inches in diameter or less, routers, planers, laminated trimmers, nibblers, shears, scroll saws, and jigsaws with blade shanks one-fourth (1/4) of an inch wide or less may be equipped with only a positive "on-off" control.
- U. All hand-held powered drills, tappers, fastener drivers, horizontal, vertical, and angle grinders with wheels greater than two (2) inches in diameter, disc sanders, belt sanders, reciprocating saws saber saws, and other similar operating powered tools shall be equipped with a momentary contact "on-off" control and may have a lock-on control provided that turn off can be accomplished by a single motion of the same finger or fingers that turn it on.
- V. All other hand-held powered tools, such as circular saws, chain saws, and percussion tools without positive accessory holding means, shall be equipped with a constant pressure switch that will shut off the power when the pressure is released.

Pneumatic Tools

A. Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidently disconnected.

- B. Safety clips or retainers shall be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidently expelled.
- C. Compressed air shall not be used for cleaning purposes except where reduced to less than 30 psi and then only with effective chip guarding and personal protective equipment, such as head, eye, face, and ear protection. The 30 psi requirement does not apply to concrete form, mill scale, and similar cleaning purposes.
- D. The manufacturer's safe operating pressure for hoses, pipes, valves, filters, and other fittings shall not be exceeded.
- E. The use of hoses for hoisting and lowering tools shall not be permitted.
- F. All hoses exceeding ½ inch inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.
- G. Hoses should be protected from traffic and pedestrians.
- H. Hoses shall be placed so that no tripping hazard is created.
- I. Loose clothing should not be worn while operating a pneumatic tool.
- J. In order to prevent the bit from sticking, employees should avoid feeding the machine too fast.
- K. Drills should be lined up straight with the hole. If tipped, the bit is almost sure to stick.
- L. Two (2) employees shall be present during the operation of the larger tamping machines.
- M. Safety set screws shall be installed and maintained on all shaft collars.
- N. Compressed air shall not be used to dust off clothing or any part of the body. Such practice is dangerous because the air may enter the tissues or a body opening and cause serious consequences.
- O. All hose clamps shall be checked routinely for tightness.

Personal Tools

Any personal hand/power or electrical tools brought on any NECA worksite by an employee shall be inspected and approved by the immediate supervisor.

Welding

- A. Prior to any welding a Hot Works Permit shall be completed.
- B. Toxic preservative coatings shall be scraped four (4) inches from the area of heat application, or air-line respirators shall be used.
- C. Only goggles, spectacles, and helmets in excellent condition shall be used.
- D. Any faulty or defective equipment shall be reported to the supervisor and replaced immediately.
- E. When welding or cutting on walls, floors, and/or ceiling, etc., employees shall inspect the opposite side of the wall for any fire hazard.
- F. When practical, objects to be welded, cut or heated shall be moved to a designated safe location, or, if the objects to be welded, cut, or heated cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place or otherwise protected.
- G. If the object to be welded, cut, or heated cannot be moved and if all the fire hazards cannot be removed, positive means shall be taken to confine the heat and sparks and to protect the immovable fire hazards from them.

- H. No welding, cutting, or heating shall be done where the application of flammable paints, the presence of other flammable compounds or heavy dust concentrations.
- I. Suitable fire extinguishing equipment shall be immediately available in a state of readiness for instant use.
- J. Drums or barrels that had contained a flammable substances; oil, grease, solvent, thinner, etc., shall not be cut with a torch.
- K. No welding shall be done in an atmosphere-lacking proper ventilation.
- L. All welders shall wear flameproof gauntlet gloves, and shoulder covers shall be worn for overhead welding.
- M. There shall be no leaks of cooling water, shielding gas, or engine fuel on welding trucks or equipment.
- N. If welding in a tank or sub-surface structure, employees shall wear a lifeline, and the Confined Space Entry Program shall be followed.
- O. Welder's clothing shall be free from oil and grease.

Gas Welding

- A. Acetylene cylinder valves shall not be opened more than ½ turn and preferably no more than 3/4 turn.
- B. Approved flash arrestors shall be installed between the torch and hoses.
- C. Only proper tools shall be used to clean torches.
- D. Matches and hot spots from previous work shall not be used to ignite acetylene torches.
- E. Torches shall be inspected before each use.
- F. If gauges are found not working correctly, they shall be taken out of service and replaced immediately.
- G. Hose connections shall be kept free of oil and grease.
- H. A single hose having more than one (1) gas passage shall not be used. When taping hoses together, not more than four (4) inches out of 12 shall be taped.
- I. Hoses shall be inspected daily before use. Hoses in doubtful condition shall not be used and replaced immediately.
- J. Hose couplings shall be of the type that cannot be unlocked by means of a straight pull without rotary motion.
- K. Boxes used for storage of hoses shall be ventilated.
- L. Hoses shall be laid out so that they will not create a tripping hazard.
- M. Valves shall be "cracked" before regular hook-ups are attempted. Operators should stand clear and crack valves away from sources of ignition.
- N. Cylinder valves shall be opened slowly.
- O. Special wrenches should be left in place so that the gas may be shut off quickly.
- P. Regulators shall be used on all fuel gas cylinders.
- Q. Cylinder valves shall be closed and gas shall be released from the regulator before the regulator is removed.
- R. If a cylinder is found to be leaking and cannot be repaired by tightening connections, it shall be tagged and removed to a safe area immediately.
- S. All gauges should be removed from oxygen and acetylene cylinders while being transported.

- T. Stored oxygen cylinders must be separated from stored acetylene cylinders or combustible materials (especially oil or grease) by at least 20 feet or separated by a non-combustible barrier.
- U. All pressurized gas cylinders in transport shall be transported in an upright secured position. The hoses and gauges must be removed and the cylinder must be capped.

Electric Welding

- A. When welding is being done near other employees, welders shall use a shield or screen.
- B. The frames of all arc-welding units shall be grounded.
- C. When electrode holders are left unattended, the electrodes shall be removed and the holders shall be placed and protected that they cannot make electrical contact with employees or conducting objects.
- D. Hot electrode holders shall not be dipped in water. To do so may expose the arc welder or cutter to electric shock.
- E. When the arc welder or cutter has to leave his work or to stop for any appreciable length of time, or when the arc welding or cutting machine is to be moved, the power supply switch to the equipment shall be opened.
- F. Any faulty or defective equipment shall be reported to the supervisor immediately.
- G. Whenever practicable, all arc welding and cutting operations shall be shielded by non-combustible screen which will protect employees and other persons working in the vicinity from the direct rays of the arc.
- H. Normally two (2) men shall be present. The helper shall maintain a constant watch for fire hazards.
- I. All electrode holders shall be of ample capacity.
- J. Current-carrying parts held by the arc welder shall be insulated.
- K. Cables shall be of ample capacity and shall be fully insulated.
- L. When using a pipeline as a ground return circuit, employees shall determine that an electrical contact exists at all joints. If the pipeline is used continuously, the joints shall be bonded, and in this case, periodic inspections shall be made for electrolysis and fire hazards.
- M. Chains, wire ropes, cranes, hoists and elevators shall not be used to carry welding current.
- N. Machines shall be dry before they are used.

Indoor Welding

General mechanical ventilation shall be of sufficient capacity and so arranged as to produce the number of air changes necessary to maintain welding fumes and smoke within safe limits. This calls for freely movable bonds to be placed closed to the work area so that fumes and smoke will be removed properly. Fumes shall be exhausted to a safe area.

Fuel Storage Facilities

A. Fuel and other petroleum products stored on the project are to be located inside a lined retention area surrounded by berms of adequate height to contain a fuel spill.

Appendix I

The berm shall be one and a half $(1 \frac{1}{2})$ times the largest tank's volume in the retention area.

- B. All drivers are required to exercise extreme caution when filling their vehicles, to avoid spills and overflows.
- C. Engine must be turned off before fueling.
- D. NOTE add fuel storage drawing,

NAVAJO ENGINEERING AND CONSTRUTION AUTHORITY

P O Box 969 Shiprock, New Mexico 87420 (505) 368-5151

SPILL INCIDENT SUMMARY FORM

This form must be completed for any reportable spills of Petroleum Products or Chemical spills that occur in NECA Yard or out on the NECA Project sites. Call NECA Safety Department immediately after the spill.

Location of spill:	Date:			
Time:	Total amount of spill:			
What caused the spill:				
		e e e e e e e e e e e e e e e e e e e		
Corrective Action Taken:				
Plans for preventing recurrence:				
Foreman (Print)	Signature	Title		
Supervisor (Print)	Signature	Title		

NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY P O BOX 969 SHIPROCK, NEW MEXICO 87420 (505) 368-5151

ABOVE STORAGE TANKS AND FIRE SAFETY MONTHLY VISUAL INSPECTION FORM

Project Name:	****			Date:		
Location of Tanks		**				
DESCRIPTION	STORAGE TANK 1	STORAGE TANK 2	STORAGE TANK 3	STORAGE TANK 4	OIL DRUMS	OTHER
AST ONLY						
SIZE OF TANK						
PRODUCT	1.5		L			<u>[</u>]
<u>PUMPS</u>			*			
Corrosion Hose Leakage Nozzle Pump Condition						
SECONDARY O	CONTAINME	NT				
Plastic Liner Dirt Dike Fence			the second secon			
FIRE SAFETY						
Fire Extinguisher No Smoking Sign Placard Locks Security						

Keep this document for your records for three years.

APPENDIX A.

Safety Meetings Topics

The topics listed below are basic suggestions for safety discussions that can be presented at safety meetings. However, additional topics may be introduced at any time during the safety meeting. Each Superintendent/Foreman shall conduct the Field Safety Meeting in a manner that invites input and participation from the crew.

- 1. Trenching Operations and Hazards
- 2. Blasting Operations and Hazards
- 3. Machinery Operations and Hazards
- 4. Personal Protective Equipment
- 5. Environment Factors and Hazards
- 6. Insects, dogs, and snakes
- 7. Heat stress
- 8. Snow, rain, ice and dust
- 9. Accident and Injury Reporting
- 10. First Aid
- 11. Confined spaces
- 12. Use of Scaffolding and ladders
- 13. Use of seat belts
- 14. Sandblasting and painting
- 15. Welding and grinding
- 16. Employee responsibilities
- 17. Safety belts and lifelines
- 18. Hand tools
- 19. Machine guards
- 20. Housekeeping
- 21. Flagging and signing
- 22. Lifting and carrying
- 23. Crane safety
- 24. Electrical safety
- 25. Fire prevention
- 26. Spill Prevention Control Countermeasure Plan (SPCCP)
- 27. Drug and Alcohol free work place.

STANDARD DETAIL

FLEL STORAGE

LOCATION: NECA YARDS

NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY

Designed by: W. Begay

Not to Scale: Use plan dimensions.

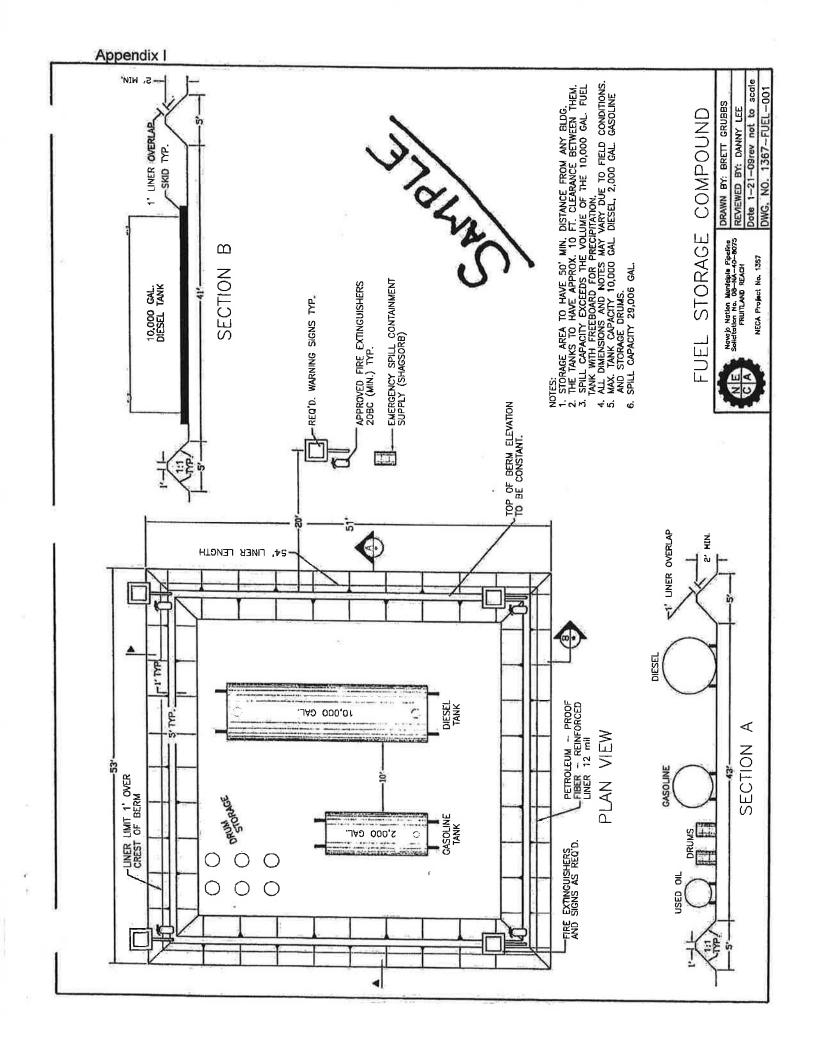
DATE: September 9, 1998 (Original Design)

REVISION: 2 10-30-98

SHEET

CONTAINMENT PLAN

1 OF 1



NAVAJO ENGINEEERING AND CONSTRUCTION AUTHORITY HAND PROTECTION POLICY

Navajo Engineering and Construction Authority (NECA) standards require that PPE be used by employees whenever workplace hazards are discovered that could damage any part of the body. In addition, NECA requires all employees to wear PPE, such as but not limited to, safety glasses, face shields, safety shoes, hearing protection (ear plugs/ear muffs), gloves, etc. as required by their job duties. PPE is to be used as a tool to reduce the hazards employees face in their daily job duties. PPE is not to be used and will not be used as a substitute for safe work practices, machine guards, or other controls designed by equipment manufacturers or other engineering sources. PPE is to be used in conjunction with these controls to increase employee protection.

This Hand Protection Policy serves as a reinforcement of NECA's commitment to the safety and health of its employees. Again, PPE is a tool, which when used correctly, reduces the hazards employees face on the job

All employees are required to wear, at a minimum, Type 3 Cut Resistant gloves when on any NECA construction site, shop, warehouse, and yards. This excludes performing office or administrative tasks, or when conducting tasks that require the appropriate hand protection (see guide of this section).

When operating moving machinery such as drills, saws, grinders or other rotating and moving equipment, <u>CAUTION SHALL</u> be taken, as the equipment could catch the glove and pull the employee's hand into the hazardous areas. Cut resistant gloves are not intended to be used as a means of stopping sharp moving blades, sharp points, or other cutting tools. Cut resistant gloves only minimizes the exposure. Elimination or administrative measures should be the primary options.

The following is a guide to the most common types of protective work gloves and the types of hazards they can guard against:

Hazard	Type of Glove
Contact with biological or chemicals other than oils, solvents, corrosives or toxic material, these gloves are not cut resistant and should only be worn for the intended task.	Impervious disposable gloves: Disposable gloves, usually made of lightweight rubber, latex, or nitrile can help guard against mild irritants.
Contact with oils, solvents, corrosives, or toxic material, these gloves are not cut resistant and should only be worn for the intended task.	Chemical-resistant utility gloves: Chemical resistant gloves may be made of rubber, nitrile, neoprene, polyvinyl alcohol, or vinyl, etc. These gloves protect hands from corrosives, oils, and solvents. When selecting chemical resistant gloves, be sure to consult the manufacturers' recommendations, especially if the gloved hand will be immersed in the chemical.
Laceration, at a minimum, employees engaged in these activities shall utilize Type 3 Cut Resistant hand protection.	Cut-resistant material (e.g. KevlarTM): Metal mesh gloves are used to protect hands from accidental cuts and scratches. Persons working with cutting tools, scalpels, scissors, or other sharp instruments use them most commonly.

Appendix I

Contact with hot or cold objects, these gloves are not cut resistant and should only be worn for the intended task.

Welders', aluminized, insulated, cryo, and freezer gloves are a few of the types of gloves used to insulate hands from intense heat or cold.

Canvas or leather work gloves:

(1) Fabric gloves are made of cotton or fabric blends and are generally used to improve grip when handling slippery objects.
(2) Leather gloves are also used in combination with an insulated liner when working with electricity.

Enforcement

An employee that fails to wear the required personal protective equipment (as stated in this policy) shall be subject to a one-day suspension without pay. A repeat offense will result in further disciplinary action up to and including termination.

NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY'S, SAFETY POLICY MANUAL

ACKNOWLEDGEMENT FORM

I hereby acknowledge that I have been orientated on Navajo Engineering and Construction Authority's Safety Policy Manual. I fully understand that I must have a thorough understanding of the Manual. I will abide by these instructions and practices.

I acknowledge that NECA safety rules and regulations are instituted for the benefit of all parties to ensure a safe and healthful working environment.

I further acknowledge adherence to these rules and regulations is a condition of my employment with NECA.

I also understand that failure to adhere to NECA Safety Policies will result in immediate disciplinary action, up to and including termination.

By signing below, indicates that I have been made aware of NECA's safety policies and procedures and I was given the opportunity to ask questions concerning the NECA's Safety Policy Manual.

Employee Signature	Supervisor Signature
Employee Print Name	Supervisor Print Name
Date Signed	Date Signed



Wheatfields Borrow Pit Mining & Reclamation Plan Navajo Engineering & Construction Authority #1 Uranium Boulevard – Shiprock, NM 87420



NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY WHEATFIELDS BORROW PIT - NECA PROJECT N12

I. INTRODUCTION

Navajo Engineering & Construction Authority's (NECA or Authority) written Emergency Action Plan provides employees with guidelines in the event of any natural or man-made emergency occurring within the confines of its facility Wheatfields Borrow Pit.

This Emergency Action Plan is site specific for work being within at the NECA Wheatfields Borrow Pit, located across the Wheatfields Chapter House. The Michael Redhorse, Project Superintendent is the designated Emergency Coordinator.

A copy of this Emergency Action Plan is kept at the following location:

Navajo Engineering & Construction Authority Safety Department One Uranium Blvd. Shiprock, NM (505) 210-7070

A copy of this plan will be kept at NECA N12 Yard. The plan shall be made available to all employees. A copy of the current NECA Safety Policy will be on site.

II. GENERAL INFORMATION

The person to contact concerning this Emergency Action Plan: Daniel Gourneau, Safety Manager One Uranium Blvd. Shiprock, NM (505) 210-7017

III. EMEREGNCY PREPAREDNESS

Emergency Contact Numbers

- 1. CHINLE FIRE DEPARTMENT: 911 or (928) 674-2105
- 2. NAVAJO EMS CHINLE: 911 OR (928) 674 7099
- 3. POLICE: 911 or (928) 674-2111
- 4. SECURITY after 5pm M-F and on weekends/holidays 24 hours: Michael Redhorse (505) 406-7489.

Utility Company Emergency Contacts

- 1. Navajo Tribal Utility Authority (NTUA): (800) 528-5011
- 2. Frontier Communication: (800) 871-5581

Evacuation Routes

Evacuation route maps have been posted in each work area. The following information is marked on evacuation maps:

- 1. Emergency exits
- 2. Primary and secondary evacuation routes
- 3. Locations of fire extinguishers
- 4. Fire alarm pull stations' location

5. Assembly points

All personnel should know at least two evacuation routes. All emergency exits shall be free of obstructions at all times.

IV. EMERGENCY REPORTING AND EVACUATION PROCEDURES

In the event of an emergency occurring on any NECA N12 Project worksite, affected employees will:

- 1. Immediately stop the work and notify the supervisor and/or the Safety Department.
- 2. Contact the local authorities, i.e., fire department, emergency medical services, or police (hereafter, Public Safety Service(s)).
- 3. Employees will report to the designated meeting spot for a head count.
- 4. After an emergency, no employee shall leave the meeting site until properly accounted for and excused by the competent person.

Types of emergencies to be reported by site personnel are:

- 1. Injury or Medical
- 2. Fire
- 3. Severe Weather
- 4. Chemical Spill
- 5. Threatening or disruptive employee, vendor, customer, or visitor

V. EMEREGNCY RESPONSE

Injuty or Medical Emergency

Each department or building manager shall designate and identify employees trained in first aid/CPR/AED use. The identified employee(s) shall be notified when the need for treatment of an injured or ill employee is in need of evaluation.

- 1. Assess the scene for safety. No employee is to enter an unsafe scene for any reason.
- 2. Treat the injured after determining the scene is safe to enter.
- 3. If necessary, call medical emergency phone number: Ambulance

Fire Department

Police Department if ambulance or Fire Department is unavailable.

- 4. Provide the following information:
 - a. Nature of medical emergency,
 - b. Location of the emergency (address, building, room identification), and
 - c. Your name and phone number from which you are calling.
- 5. Do not move victim unless absolutely necessary.
- Call the one of the personnel trained in CPR and First Aid to provide the required assistance prior to the arrival of the professional medical help:
- If personnel trained in First Aid are not available, as a minimum, attempt to provide the following assistance:
 - a. Stop the bleeding with firm pressure on the wounds (note: avoid contact with blood or other bodily fluids).
 - b. Clear the air passages using the abdominal thrusts and back blows in case of choking.
- 8. In case of rendering assistance to personnel exposed to hazardous materials, consult the Safety Data Sheet (SDS) and wear the appropriate personal protective equipment.
- 9. Attempt first aid ONLY if trained and qualified.

Fire Emergency

- 1. When fire is discovered:
 - a. Activate the nearest fire alarm (if installed)
 - b. Notify the local Fire Department
 - c. If the fire alarm is not available, notify the site personnel about the fire emergency by the following means (check applicable):
 - Voice Communication
 - ii. Phone
 - iii. In-house radio
- 2. Fight the fire ONLY if:
 - a. The Fire Department has been notified.
 - b. The fire is small and is not spreading to other areas.
 - c. Escaping the area is possible by backing up to the nearest exit.
 - d. The fire extinguisher is in working condition and personnel are trained to use it.
- 3. Upon being notified about the fire emergency, occupants must:
 - a. Leave the building using the designated escape routes.
 - b. Assemble in the designated area identified by the department or building manager.
 - c. Remain outside until the competent authority (Designated Official or designee) announces that it is safe to reenter.
- Department Manager or Designated Employee shall:
 - a. Disconnect utilities and equipment unless doing so jeopardizes his/her safety.
 - b. Coordinate an orderly evacuation of personnel.
 - c. Perform an accurate head count of personnel reported to the designated area.
 - d. Determine a rescue method to locate missing personnel.
 - e. Provide the Fire Department personnel with the necessary information about the facility.
 - f. Perform assessment and coordinate weather forecast office emergency closing procedures
- 5. Lobbies and Hallways:
 - The Receptionist or assigned front desk person in each building is responsible to:
 - Ensure that all employees and visitors have evacuated the lobby, restrooms, and hallways.
 - b. Assist or request for assistance with all physically challenged employees and visitors in emergency evacuation.
 - c. Report any problems to the Emergency Coordinator at the assembly area.

Severe Weather and Natural Disasters

- 1. Tornado:
 - a. When a warning is issued by sirens or other means, seek inside shelter.
 - i. Consider the following:
 - Small interior rooms on the lowest floor and without windows,
 - Hallways on the lowest floor away from doors and windows, and
 - Rooms constructed with reinforced concrete, brick, or block with no windows.
 - b. Stay away from outside walls and windows.
 - c. Use arms to protect head and neck.
 - d. Remain sheltered until the tornado threat is announced to be over.
- Earthquake:
 - a. Stay calm and await instructions from the Emergency Coordinator or the designated official.
 - b. Keep away from overhead fixtures, windows, filing cabinets, and electrical power.
 - c. Assist people with disabilities in finding a safe place.
 - d. Evacuate as instructed by the Emergency Coordinator and/or the designated official.

3. Flood:

- a. If indoors:
 - i. Be ready to evacuate as directed by the Emergency Coordinator and/or the designated official.
 - ii. Follow the recommended primary or secondary evacuation routes.
- b. If outdoors:
 - i. Climb to high ground and stay there.
 - ii. Avoid walking or driving through flood water.
 - iii. If car stalls, abandon it immediately and climb to a higher ground.

4. Blizzard:

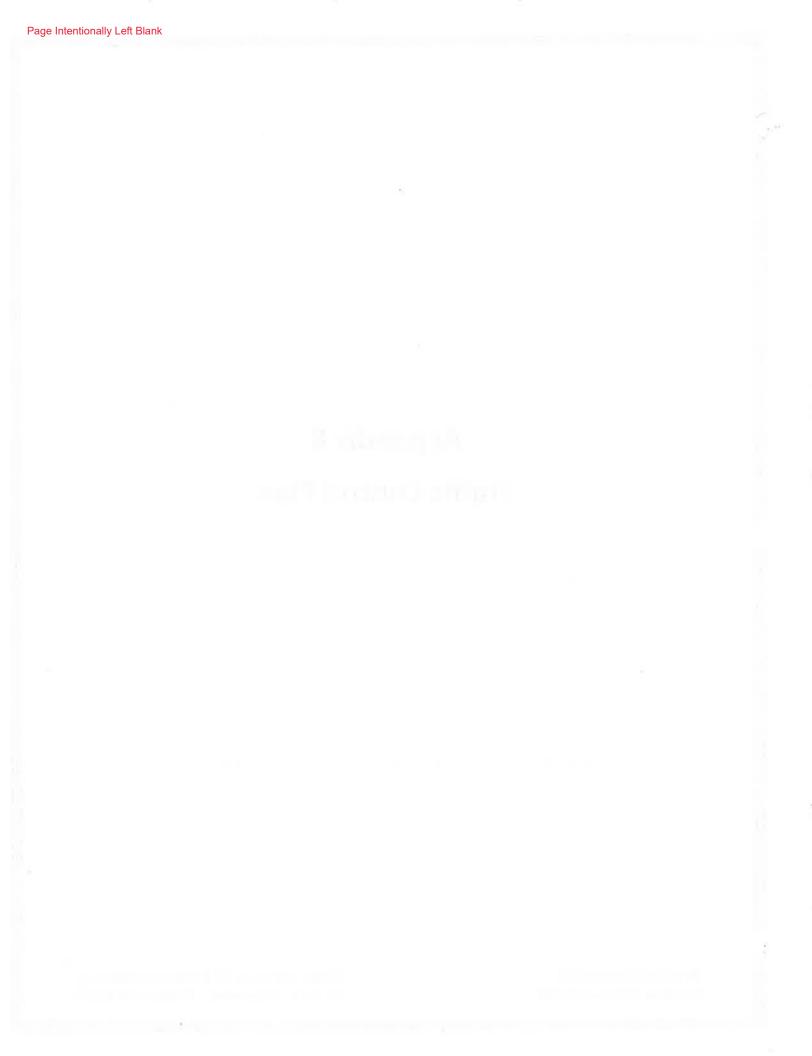
- a. The Project Superintendent shall determine the need for shelter in place based on the weather conditions.
- Stay calm and await instructions from the Emergency Coordinator or the designated official.
- c. Stay indoors!
- d. If there is no heat:
 - i. Close off unneeded rooms or areas.
 - Stuff towels or rags in cracks under doors.
 - Cover windows at night.
 - -. Eat and drink. Food provides the body with energy and heat. Fluids prevent dehydration.
 - Wear layers of loose-fitting, light-weight, warm clothing, if available.
 - ii. Exercise to keep blood circulating and to keep warm.
- 5. If confronted with a threatening or disruptive employee, vendor, customer, or visitor:
 - a. Notify your supervisor or another nearby employee.
 - Stay calm and non-confrontational.
 - c. Slow everything down.
 - d. Speak slowly and keep distance from perpetrator.
 - e. Do not become animated in your body language.
 - f. If a weapon is displayed, try to go to a safe area and summon the police.

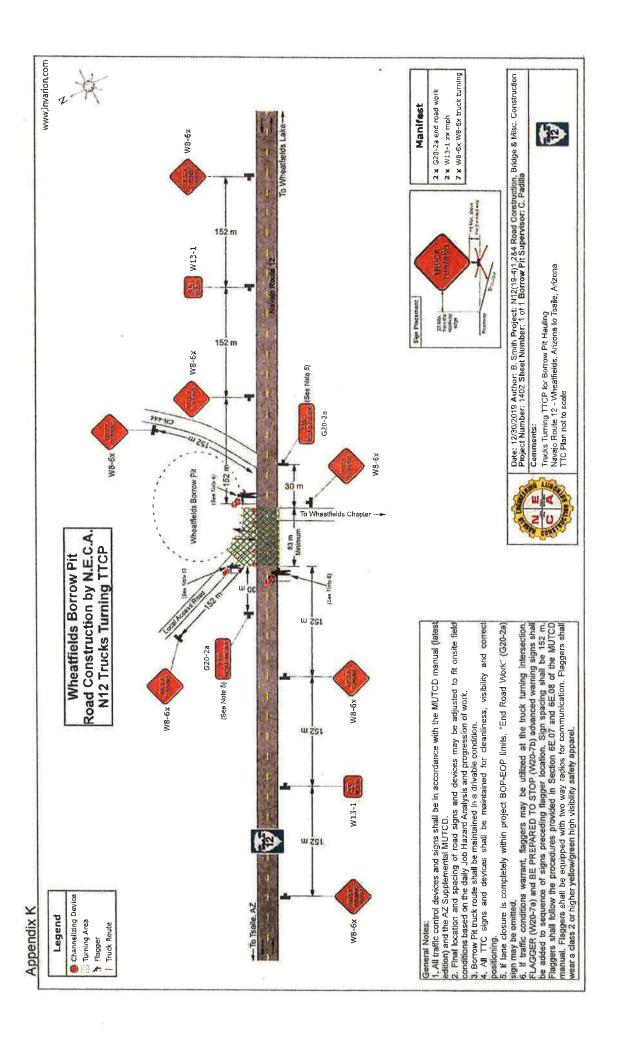
VI. REVIEW

The Emergency Action Plan shall be reviewed continuously and may change as necessary. All suggestions will be considered and reviewed and all revisions shall be approved by management and disseminated to all NECA employees.



Wheatfields Borrow Pit Mining & Reclamation Plan Navajo Engineering & Construction Authority #1 Uranium Boulevard – Shiprock, NM 87420





Appendix L

Multi-Section General Permit (SWPPP)

(NECA Project 1402 – Storm Water Pollution Prevention Plan)

Utah Com

Arra New Mex

The content of this item is Voluminous and has not been included; however, it can be viewed at the Wheatfields Borrow Pit site or at NECA's Headquarters in Shiprock, NM



Appendix M Turf Establishment (Reclamation)

Wheatfields Borrow Pit Mining & Reclamation Plan Navajo Engineering & Construction Authority #1 Uranium Boulevard – Shiprock, NM 87420



Section 625. — TURF ESTABLISHMENT

Description

625.01 This work consists of soil preparation, watering, fertilizing, seeding, and mulching.

Seeding and mulching methods are designated as dry or hydraulic.

Material

625.02 Conform to the following Subsections:

Agricultural limestone	713.02
Fertilizer	713.02
Mulch	713.05
Seed	713.04
Tackifiers	713.11
Water	725.01(b)

Construction Requirements

625.03 General. Apply turf establishment to finished slopes and ditches within 14 days after completion of construction on a portion of the site when approved by the CO. Do not seed during windy weather or when the ground is excessively wet, frozen, snow covered, extremely dry, cloddy, hard pan, or not friable.

625.04 Preparing Seedbed. Grade the seeding area to line and grade. Remove weeds, sticks, stones 2 inches (50 millimeters) in diameter and larger, and other debris detrimental to application, growth, or maintenance of the turf.

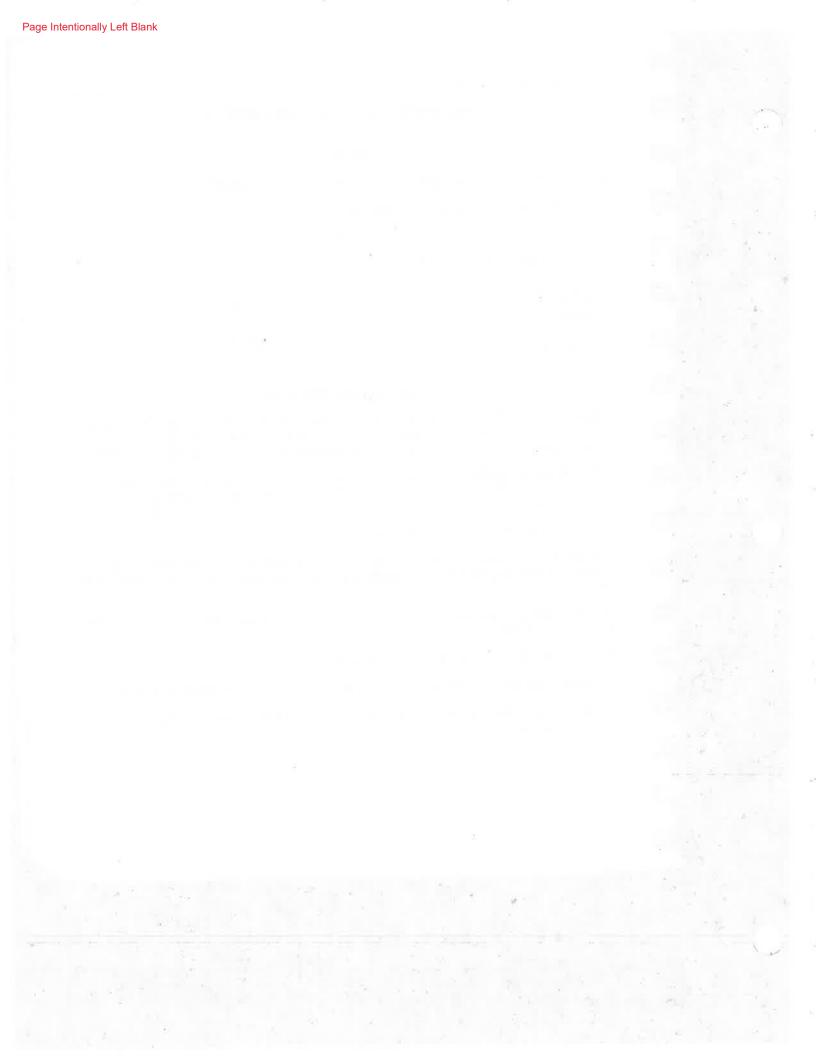
Apply limestone and grub proofing if specified.

Cultivate the seeding area to a minimum depth of 4 inches (100 millimeters) and prepare a firm, but friable seedbed before seeding. Do not cultivate aggregate-topsoil courses that were previously dry seeded under Section 313.

625.05 Watering. Moisten seeding areas before seeding and maintain the moisture until turf is established or until final acceptance.

625.06 Fertilizing. Apply fertilizer by the following methods:

- (a) Dry method. Incorporate the fertilizer into the upper portion of the seedbed before seeding; or
- **(b) Hydraulic method.** Add fertilizer to the slurry and mix before adding seed. Apply the seed and fertilizer in one application.



625.07 Seeding. Apply seed by the following methods:

- (a) Dry method. Apply the seed with approved power driven seeders, drills, or other mechanical equipment. Hand-operated seeding methods are satisfactory on areas inaccessible to mechanical equipment; or
- (b) Hydraulic method. Use hydraulic-type equipment capable of providing a/uniform application using water as the carrying agent. Add a tracer material consisting of either wood or grass cellulose fiber mulch to the water. Apply the tracer material at a rate of 400 pounds per acre (450 kilograms per hectare) to provide visible evidence of uniform application. Add the seed to the water slurry no more than 30 minutes before application. Seed by hand areas inaccessible to seeding equipment.
- **625.08 Mulching.** If wood chips are used, do not import without approval from the CO. Apply mulch within 48 hours after seeding by the following methods:
 - (a) Dry method. Spread mulch material, except wood and grass cellulose fibers, by a mulch spreader utilizing forced air to blow the mulch material onto the seeded area. Apply straw mulch at a rate of 3200 pounds per acre (3600 kilograms per hectare). Anchor the mulch material with an approved tackiffer or approved mechanical method. Do not mark or deface structures, pavements, utilities, or plant growth with tackifier; or
 - **(b) Hydraulic method.** Apply mulch in a separate application from the seed using hydraulic-type equipment according to Subsection 625.07(b).

Apply wood fiber or grass straw cellulose fiber mulch at a rate of 1500 pounds per acre (1700 kilograms per hectare).

Apply bonded fiber matrix hydraulic mulch at a minimum rate of 3000 pounds per acre (3400 kilograms per hectare). Apply so no hole in the matrix is greater than 0.04 inches (1 millimeter). Apply so that no gaps exist between the matrix and the soil.

Mulch by hand areas inaccessible to mulching equipment.

- **625.09 Protecting and Caring for Seeded Areas.** Protect and care for seeded areas including watering when needed. Repair or apply supplemental applications of seed, mulch, fertilizer, and water as many times as needed until turf is established or final acceptance.
- **625.10** Acceptance. Material for turf establishment will be evaluated under Subsections 106.02 and 106.03.

Placing of turf establishment will be evaluated under Subsections 106.02 and 106.04.

W .	
	3
	-

Measurement

625.11 Measure the Section 625 pay items listed in the bid schedule according to Subsection 109.02 and the following as applicable:

When measuring turf establishment and supplemental applications by the acre (hectare), measure on the ground surface.

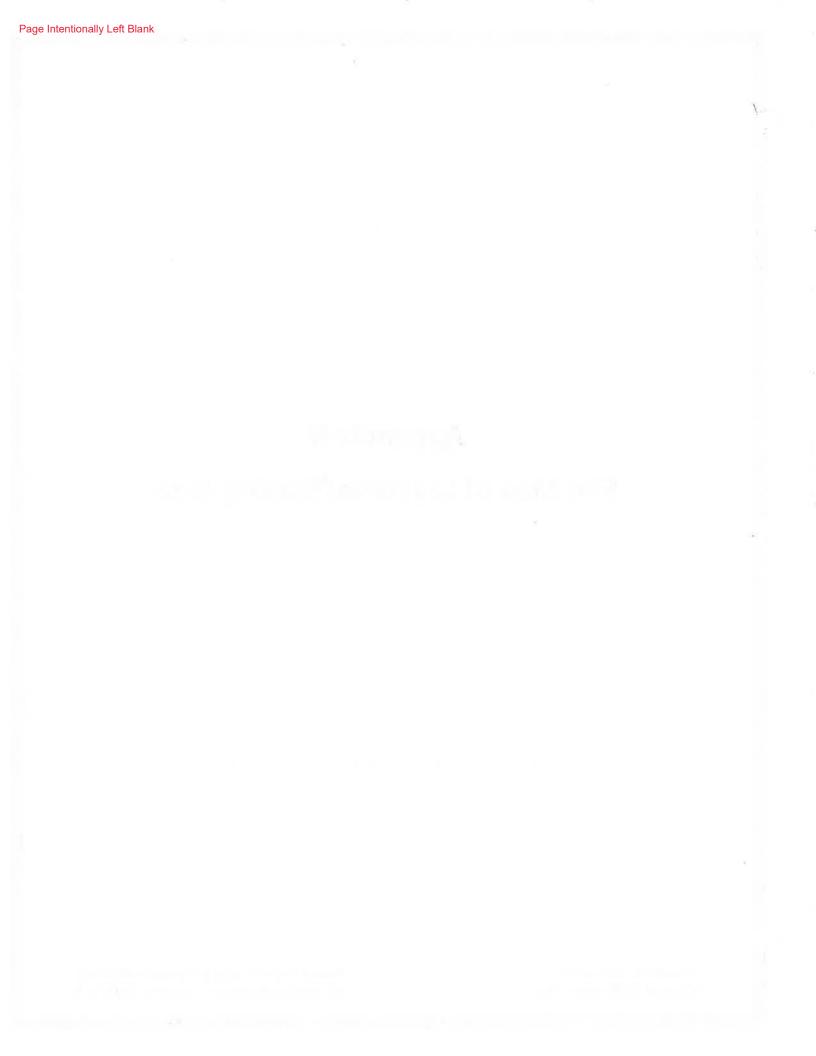
When measuring water by volume or mass, measure in the hauling vehicle or by metering.

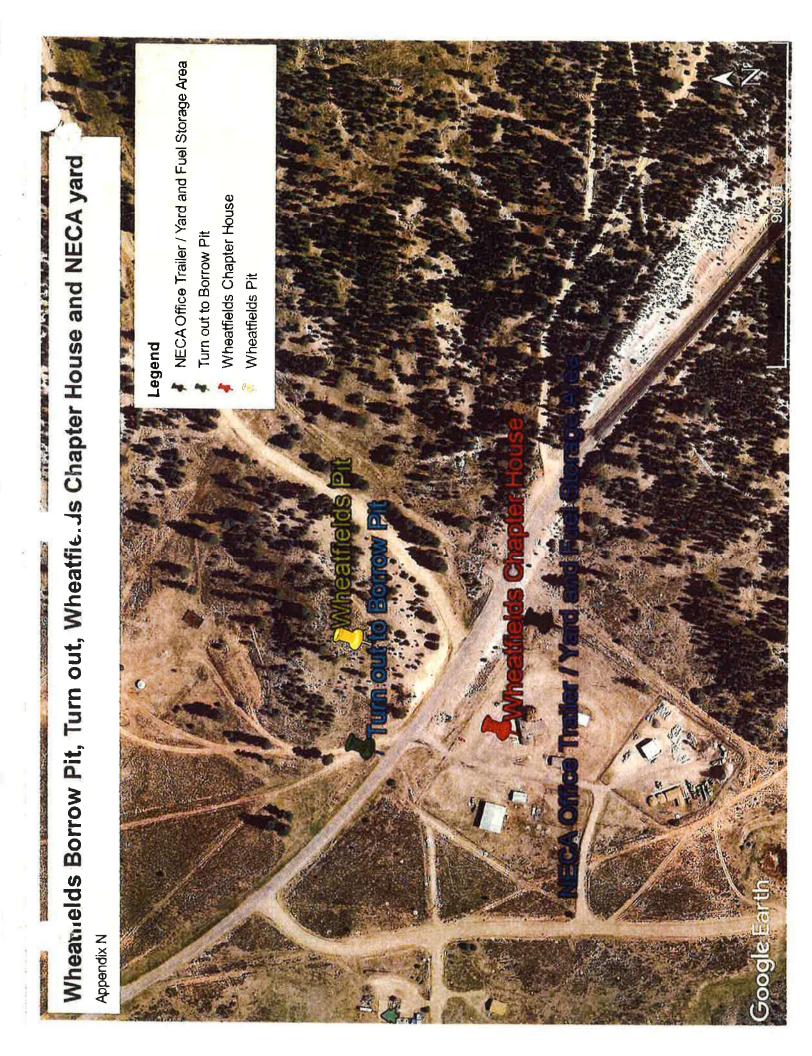
Payment

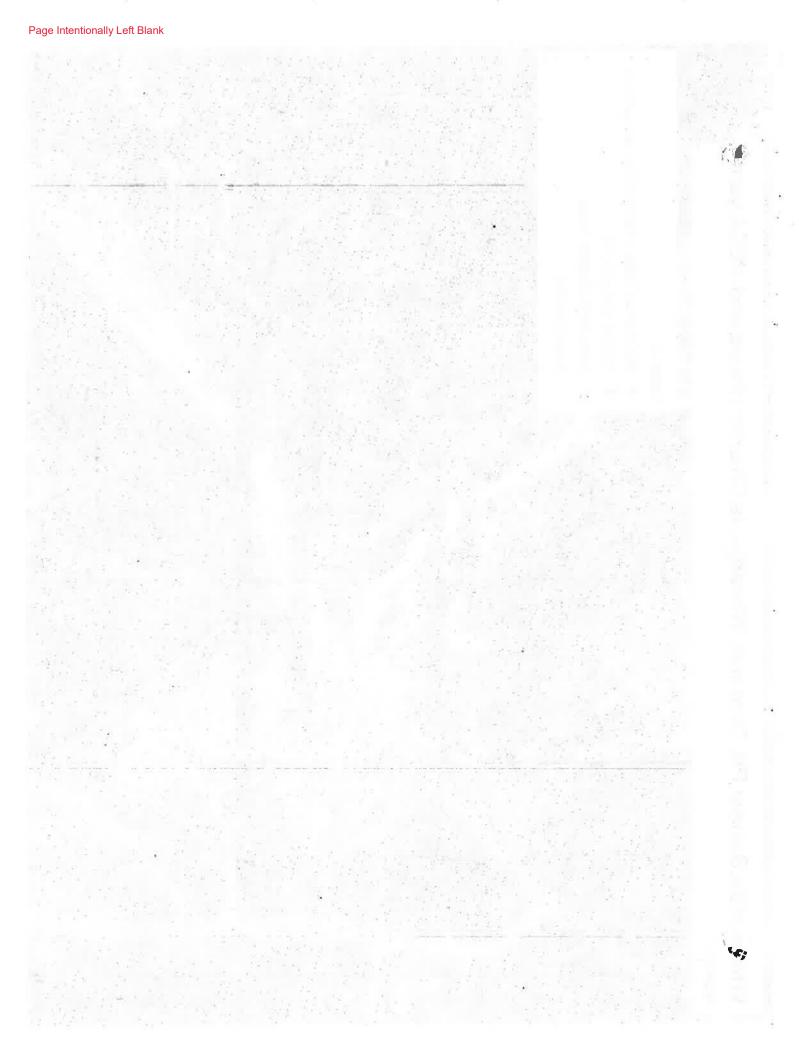
625.12 The accepted quantities will be paid at the contract price per unit of measurement for the Section 625 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Appendix N Site Map of Laydown/Staging Area

Wheatfields Borrow Pit Mining & Reclamation Plan Navajo Engineering & Construction Authority #1 Uranium Boulevard – Shiprock, NM 87420







Appendix O Frontier Communications Correspondence

Wheatfields Borrow Pit Mining & Reclamation Plan

Navajo Engineering & Construction Authority #1 Uranium Boulevard – Shiprock, NM 87420



December 10, 2020

Navajo Engineering & Construction Authority

PO Box 969 Shiprock, NM 87420 Attention: Jamie Sagg

RE: Communication Pedestal at N12 Borrow Pit – Tsaile, AZ

Dear Ms. Sagg

Frontier Communication hereby grants permission to NECA to proceed with construction at the N12 borrow pit. Existing pedestal labeled RT5-50-1 with a working number (928) 724-3145 will be protected in place and relocation will be mitigated. Should any damages occur, NECA will be presented with an invoice for Frontier truck roll, time, and materials.

Should you have any further questions, please feel free to contact me at (928) 871-3800.

Thank you.

Sincerely,

Shawn Mitchell Frontier Communications OSP Engineer

cc: file Jamie Sagg James Hansen Page Intentionally Left Blank

Terry Gorsuch

From:

Quinn Montoya

Sent:

Tuesday, October 6, 2020 5:03 PM

To:

Terry Gorsuch

Subject:

Fwd: N12(19-4)1,2&4: Phone Pedestal at Borrow Pit

Fyi

Get Outlook for Android

From: Jamie Sagg <jamie@navajo.net> Sent: Tuesday, October 6, 2020, 4:53 PM

To: Quinn Montoya

Subject: Fw: N12(19-4)1,2&4: Phone Pedestal at Borrow Pit

Jamie Sagg

Project Engineer

NECA Navajo Engineering & Construction Authority

#1 Uranium Blvd. | P.O. Box 969 | Shiprock, NM 87420

P: 505-406-2150 E: jamie@navajo.net W: Navajo.net

From: Mitchell, Shawn <Shawn.Mitchell@FTR.com>

Sent: Monday, September 14, 2020 10:59 AM

To: Jamie Sagg

Cc: Christine Padilla; Patrick Martinez

Subject: RE: N12(19-4)1,2&4: Phone Pedestal at Borrow Pit

Good morning Jamie

Apologies. Yes, please proceed with the borrow pit construction. The pedestal within the construction zone may be mitigated for now.

If relocation is necessary, Frontier will proceed.

Thank you

sm

From: Jamie Sagg <jamie@navajo.net>

Sent: Monday, September 14, 2020 9:54 AM
To: Mitchell, Shawn <Shawn.Mitchell@FTR.com>

Cc: Christine Padilla <Christine@navajo.net>; Patrick Martinez <Patrick@navajo.net>

Subject: N12(19-4)1,2&4: Phone Pedestal at Borrow Pit

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Good morning Shawn,

Once again, I am requesting that Frontier provide documentation that they have been informed that NECA will be accessing the borrow pit directly across the the Tsaile/Wheatfields Chapter House. Borrow Pit material will be utilized on the N12 BIA/NDOT highway reconstruction project. As mentioned, there is a telephone pedestal in the area, with a line that runs across the N12 highway towards the chapter house and towards the North. You performed a site visit on March 17th, 2020.

Again, NECA will be working in the area and there will be heavy traffic going in and out. The pedestal and phone lines will be protected in place for now, until relocation is deemed necessary for our operations. I have also tried to call you at the number (928)551-4796 number numerous times regarding this matter. Please let me know if you have any questions.

Thank you,

Jamie Sagg

Project Engineer

NECA Navajo Engineering & Construction Authority

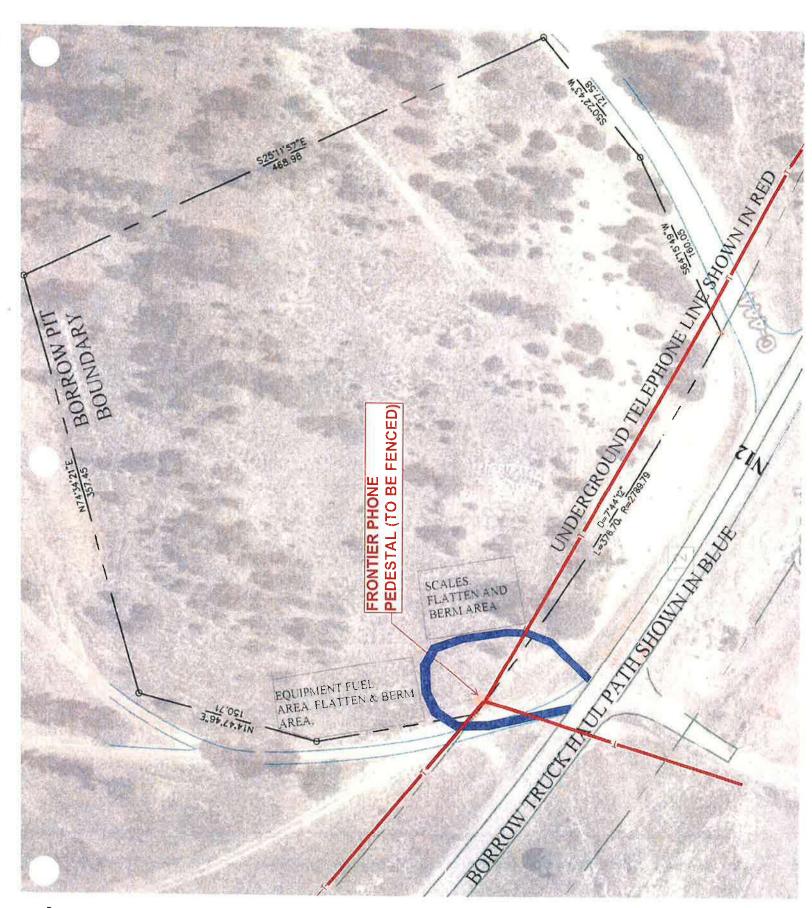
#1 Uranium Blvd. | P.O. Box 969 | Shiprock, NM 87420 P: 505-406-2150

E: jamie@navajo.net

W: Navajo.net

This communication is confidential. Frontier only sends and receives email on the basis of the terms set out at http://www.frontier.com/email_disclaimer.



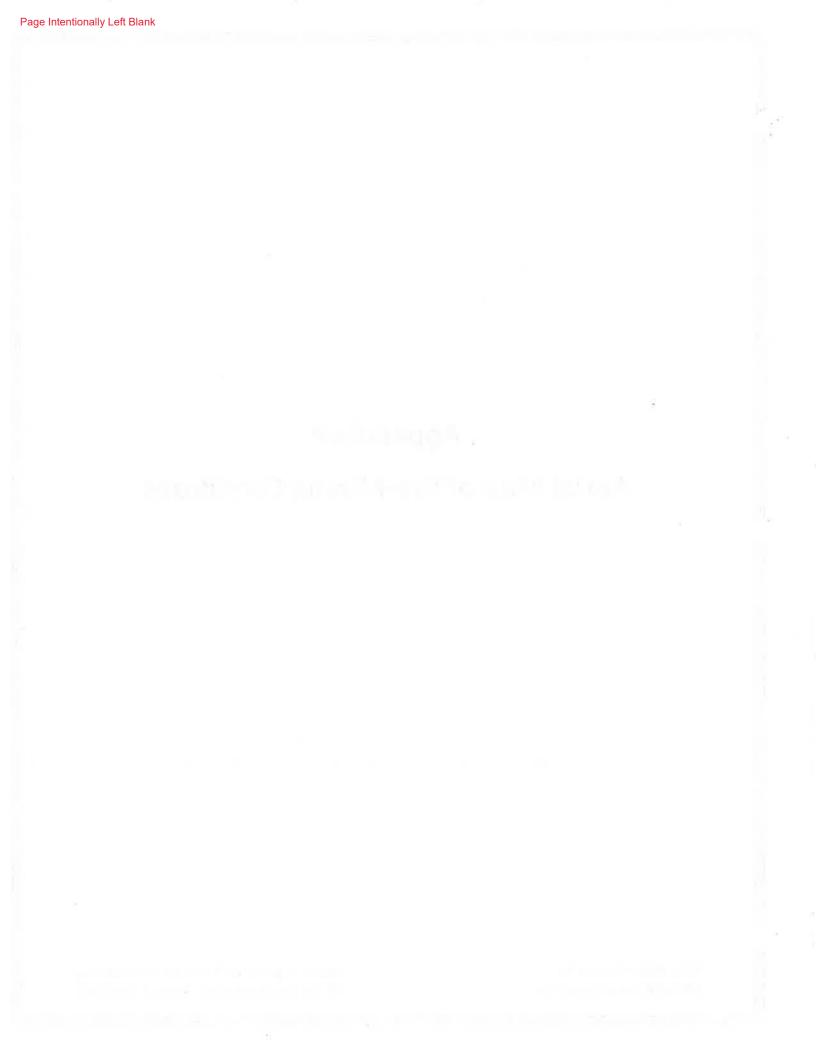


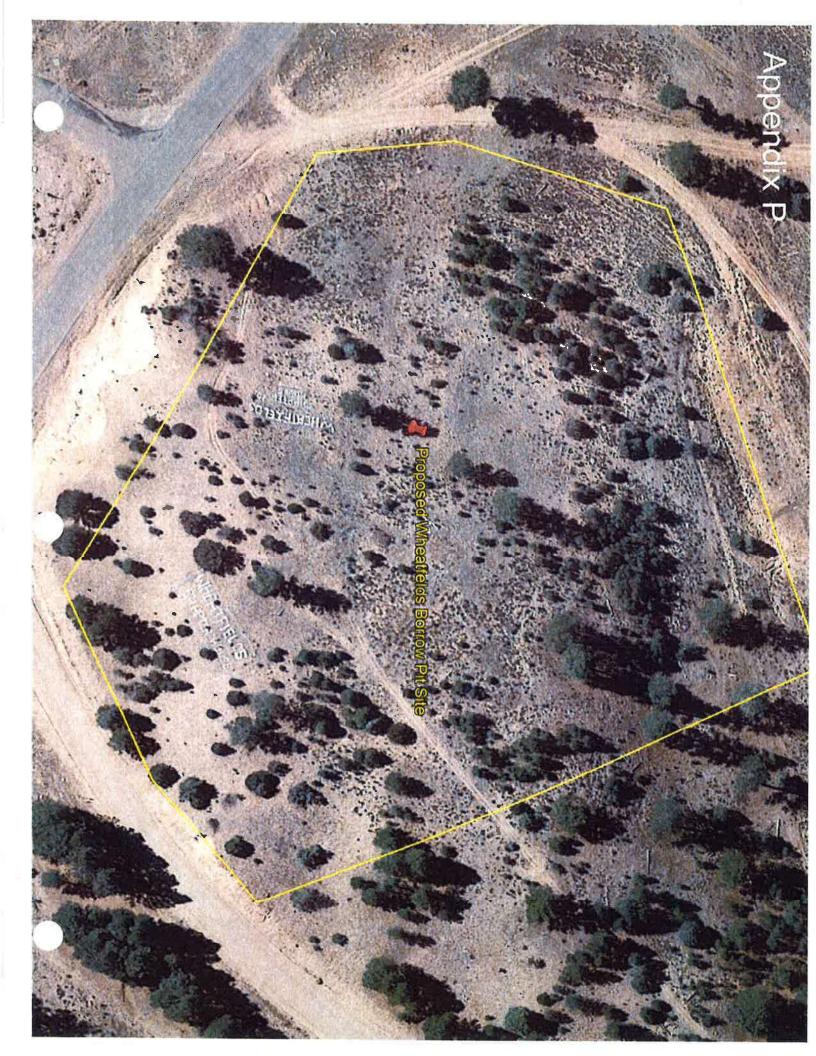
Appendix O

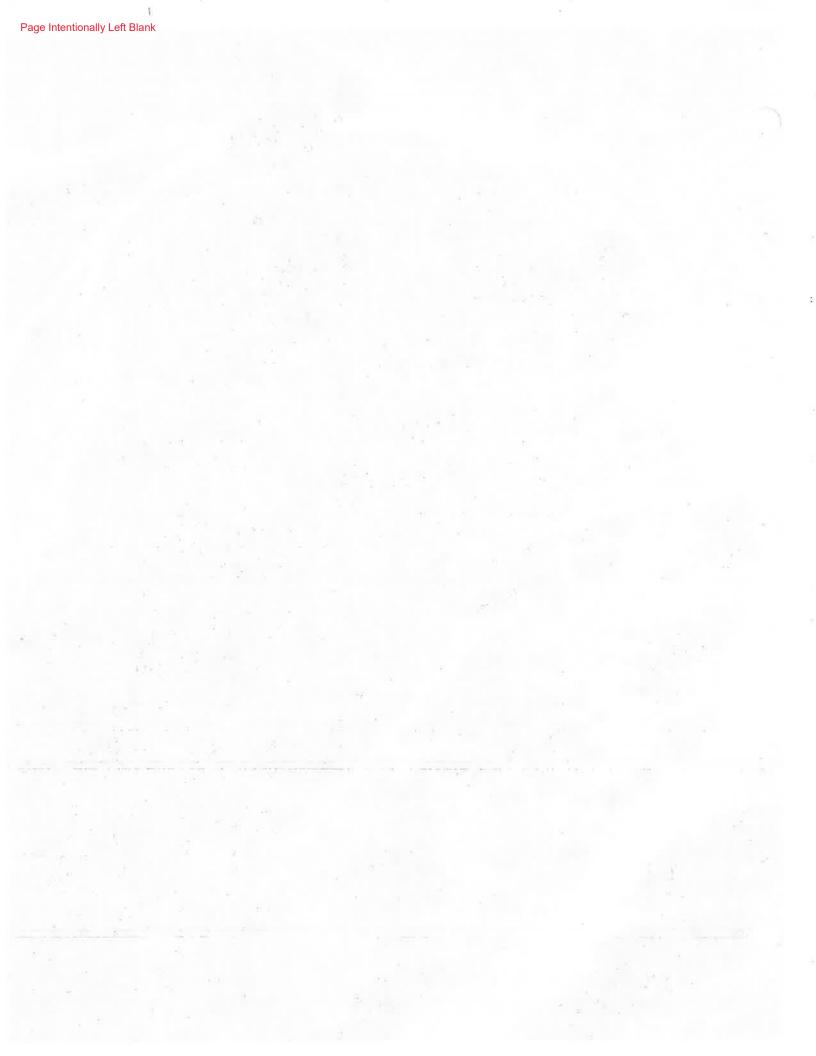


Appendix P Aerial Map of Pre-Mining Conditions

Wheatfields Borrow Pit Mining & Reclamation Plan Navajo Engineering & Construction Authority #1 Uranium Boulevard — Shiprock, NM 87420







Appendix Q Soil Weight Calculations

Wheatfields Borrow Pit Mining & Reclamation Plan

Navajo Engineering & Construction Authority #1 Uranium Boulevard – Shiprock, NM 87420



Empirical values for γ, of granular soils based on the standard penetration number, (from

Bowels, Foundation Analysis).

SPT Penetration, N-		
Value (blows/foot)	y (lb/ft ³)	
0 - 4	70 - 100	
4 - 10	90 - 115	
10 - 30	110 - 130	
30 - 50	110 - 140	
>50	130 - 150	

Empirical values for y, of cohesive soils based on the standard penetration number, (from

Bowels, Foundation Analysis).

SPT Penetration, N-	
Value (blows/ foot)	$\gamma_{\rm sat}$ (lb/ft ³)
0 - 4	100 - 120
4 - 8	110 - 130
8 - 32	120 - 140

Typical Soil Characteristics (from Lindeburg, Civil Engineering Reference Manual for the PE

Exam, 8th ed.)

Soil Type	γ (lb/ft ³)	$\gamma_{\rm sat}$ (lb/ft ³)
Sand, loose and uniform	90	118
Sand, dense	109	130
., loose and well graded	99	124
Sand, dense and well graded	116	135
glacial clay, soft	76	110
glacial clay, stiff	106	125

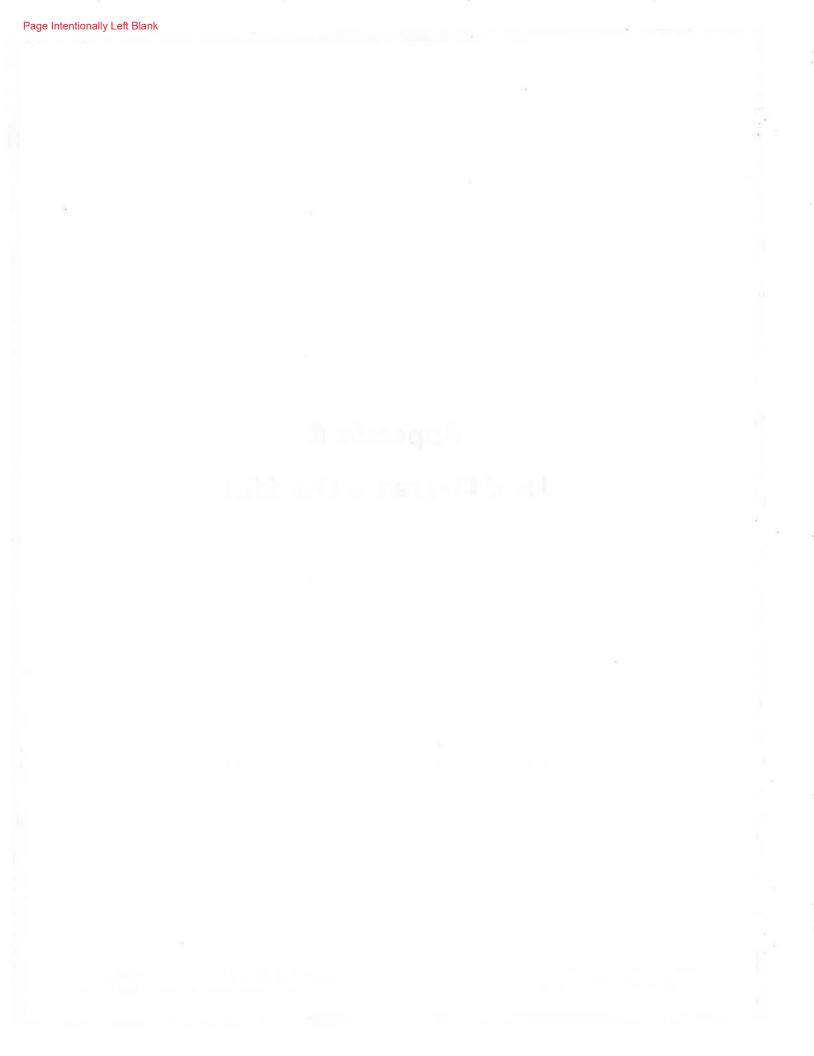
For weight per cubic yard estimates, NECA calculated an average of 110lbs per cubic foot. Average calculated using the low, dry weight of "sand, loose and uniform (90lbs) x the high, saturated "sand, dense and uniform (130lbs).

110lbs x 27 cubic feet = 2,970lbs per cubic yard (1.485 short tons per cubic yard).



Appendix R Field Clearance Checklist

Wheatfields Borrow Pit Mining & Reclamation Plan Navajo Engineering & Construction Authority #1 Uranium Boulevard — Shiprock, NM 87420



FIELD CLEARANCE CHECKLIST

(This form covers only damages and compensation to individual land users. It does not cover consideration or other fees to the Navajo Nation. Use back if necessary to complete this form).

1.	Project Identifica	ation				
Applicant: The Navajo Engineering and Construction Authority. P.O. Box 969, Shiprock, NM 87420						
	Type of Project: Borrow Material Lease for a term of five years.					
	Purpose: Excavate borrow source material to reconstruct of 10.68 miles of					
		Navajo Rou				
	Location:		atfields Chapter, the NAV	AJO NATION,		
	T4 // / 37		unty, Arizona			
	Identification No	imber (s): NIZ	2(19-4)1.2, & 4 Tsaile/Who	eathelds, Arizona		
2.	Amount of Land	l Affected: 4.91	Acres.			
3.	Land Status:	Trust XX				
4.	List names of all	l individuals whose	land use rights will be affe	ected by his project:		
	Names:		Census Number	Type of Land Use Right		
	1. Evelyn	Begay	069, 590	Grazing; 11-343		
	3.			****		
	4.					
5.			s to the affected lands as sh list in Item 4? <u>1405</u>	nown in the BIA Branch of Land		
	•					
6.			Board Member (whichever signing acknowledgement	is appropriate) for the affected area t below.		
		АСК	NOWLEDGEMEN	T		
T	demand description to		A LIT OF A TOTAL T	ore de la companya d		
acc	ording to my reco	rds and to the best o	of my knowledge, the list o	to the proposed project, and f individuals in Item #4 includes all		
Lar	iu Osers who have	e land use rights in t	ne affected lands.			
4	9.14.20	Chal	& Che	11.3		
Da	te	Grazing Committe	s or Land Board Member	District Number		

CONSENT TO USE NAVAJO NATION LANDS

TO WHOM IT MAY CONCERN:			
I, Evelyn Begay of Indian Affairs to permit The Nava	, hereby grant co	onsent to the Navajo	Nation and the Bureau
P.O. Box 969. Shiprock, New Mexico			
purpose(s): Borrow Material lease for			
Trust Lands in the proximity of Tsaile			
T-33-N; R-30-E; Gila and Salt River			
material will be excavated to reconstru		The second secon	
as the borrow material area is located			
that shows the location of the propose			
acknowledge as good and adequate co as a result of the above referenced pro REMARKS:		5	
09-14-2020 Euly DATE GRAZING PEAM	Began HITTÉE SIGNATURE R THUMBPRINT)	0 <i>64. 5 9 o</i> CENSUS NO.	11-343 PERMIT NO.
728-724-3145 P.O. Box L	HI , Tsaile , 48 865 :	56 568-	54-5719
PHONE NO. ADDRESS	(P.O. BOX, CITY, STATE, Z	IIP) SO	CIAL SECURITY NO.
WITNESS:	Van	/	8
9.14.20 Clan	le Che	-	11.3
DATE GRAZING PERM	ITTEE SIGNATURE		DISTRICT

ACKNOWLEDGEMENT OF FIELD AGENT

I acknowledge that the contents of this consent form was pread for fully explained to the grazing permit holder of Navajo or English. (check where applicable)

(OR THUMBPRINT)

Field Agent Signature

Form 4/10/2018

Appendix S Stockpile & Load-Out Map

Wheatfields Borrow Pit Mining & Reclamation Plan Navajo Engineering & Construction Authority #1 Uranium Boulevard – Shiprock, NM 87420

