

# SPECIAL PROVISIONS

## WATERWAY PERMITS FOR

CRS: MAH 80 - 0.97

PID NO.: 6080

U.S. ARMY CORPS OF ENGINEERS

PERMIT NUMBER: \_\_\_\_\_

OHIO EPA

PERMIT NUMBER: SWIMS ID#052322

DATE: 07/08/2005

**OhioEPA**  
State of Ohio Environmental Protection Agency

**STREET ADDRESS:**

Lazarus Government Center  
122 S. Front Street  
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184  
www.epa.state.oh.us

**MAILING ADDRESS:**

P.O. Box 1049  
Columbus, OH 43216-1049

July 8, 2005

Timothy M. Hill, Administrator  
Ohio Department of Transportation  
Office of Environmental Services  
PO Box 899  
Columbus, Ohio 43216-0899

RE: **Pre-Activity Notification: General Isolated Wetland Permit (Level One)**  
Ohio EPA SWIMS ID# 052322  
**Project:** Widening IR 80 to six lanes between the Ohio Turnpike Interchange 15 and the IR 80/SR 11 Interchange, replacement of bridges over Meander Creek Reservoir, and culvert and embankment work  
**Project ID # :** MAH-80-0.97, PID 6080 (General Isolated Wetland Permit, Level One)

Dear Mr. Hill:

This is to inform you that we have issued a General Isolated Wetland Permit (Level 1) for the above reference project, effective July 8, 2005. We received the General Isolated Wetland Permit Application (dated June 2005) in our office on July 7, 2005. The project involves widening IR 80 to six lanes between the Ohio Turnpike Interchange 15 and the IR 80/SR 11 Interchange in Austintown and Jackson Townships, Mahoning County, Ohio. Associated construction work includes the replacement of two-lane twin bridges (and spill containment system) over the Meander Creek Reservoir, safety grading, and replacement or extension of culverts on specified streams. The project is estimated to impact two Category 1 isolated wetlands (NW-1, NW-D, Table 1), totaling 0.154 acres of impacts. This permit authorizes the designated impacts exclusively to isolated Wetlands NW-1 and NW-D.

The overall project is estimated to impact jurisdictional streams and wetlands and isolated wetlands. We are in receipt of a copy of the Army Corps of Engineers (Pittsburgh District) April 27, 2005 "jurisdictional verification" letter. The Corps confirmed that Wetlands NW-1 and NW-D are considered isolated wetlands.

On February 11, 2002, the Director of the Ohio EPA, pursuant to Ohio Revised Code (ORC) Section 6111.021 issued the Ohio General Permit for filling Category 1 and Category 2 Isolated Wetlands. Ohio Department of Transportation (ODOT) has been granted an Isolated Wetland Permit for submitting a complete and acceptable General Isolated Wetland Permit Application.

Bob Taft, Governor  
Bruce Johnson, Lieutenant Governor  
Joseph P. Konecni, Director

Timothy M. Hill, Administrator  
 Ohio Department of Transportation  
 General Isolated Wetland Permit (Level One)  
 MAH-80-0.97, PID 6080  
 Page 2 of 2

Final  
 01/31/02

Effective Date: February 11, 2002  
 Expiration Date: February 11, 2007

OHIO GENERAL PERMIT FOR FILLING  
 CATEGORY 1 AND CATEGORY 2 ISOLATED WETLANDS

Table 1: Isolated Wetland Characteristics						
Wetland ID	Wetland Location	Wetland Size (acres)	Wetland Impact (acres)	Wetland Category	ORAM Score	Nature of Impact
NW-1	Just north of IR-80 in northwest quadrant of IR-80 and Meander Creek Reservoir crossing	0.108	0.108	1	29.0	Western spill containment basin
NW-U	Just north of IR-80 in northwest quadrant of IR-80 and Meander Creek Reservoir crossing	0.046	0.046	1	27.0	Western spill containment basin
TOTALS		0.154	0.154			

Pursuant to Section 6111.021 of the Ohio Revised Code (ORC), the Director of the Ohio Environmental Protection Agency hereby authorizes the filling of, and the discharge of dredged material into, Category 1 and Category 2 isolated wetlands, in accordance with the conditions specified in Parts I through V of this permit, where the proposed project involves the filling of, or the discharge of dredged material into, Category 1 and Category 2 isolated wetlands of a total of 1/2 acre or less.

Coverage under this general permit is conditioned upon payment of applicable fees and submittal of a complete Pre-Activity Notice (PAN).

This General Isolated Wetland Permit shall be effective for five (5) years and shall expire at midnight on the expiration date shown above.

Please note that you are required to abide by all of the provisions of the general permit, specifically the permit conditions listed in Part III and the mitigation requirements listed in Part IV. Per ORC Section 6111.022 (E) and Part V of the General Permit, the proposed filling of the isolated wetland must be completed within two years of the date of this permit. If you do not complete the filling within this two year period, you must submit a new pre-activity notice (PAN) to Ohio EPA.

We thank you for submitting the isolated wetland permit application for our review. If you have any questions or issues you would like to discuss regarding this determination or the project, please contact me at (614) 644-2138.

Sincerely,

*Arthur L. Coleman, Jr.*

Arthur L. Coleman, Jr.  
 Ohio EPA, DSW, 401 Certification and Isolated Wetland Permit Unit

- cc: Marcia Haberman, US Army Corps of Engineers (Pittsburgh District)
- Wayne Gorski, US EPA/Region V
- William Cody, Asst. Administrator, OES/ODOT
- Mike Pettegrew, Supervisor, Waterway Permits Unit, OES/ODOT
- Don Rostofer, OES/ODOT
- Ed Wilk, DSW/NEDO
- Mary Knapp, US Fish & Wildlife Service
- Randy Sanders, ODNR

\_\_\_\_\_  
 Director

## Part I. COVERAGE UNDER THIS PERMIT

Coverage under this permit is limited to the filling of, and the discharge of dredged material into, Category 1 and Category 2 isolated wetlands, where the proposed project involves the filling of, or the discharge of dredged material into, Category 1 and Category 2 isolated wetlands of a total of ½ acre or less. The filling of, or discharge of dredged material into, Category 3 isolated wetlands is specifically not covered under this general permit.

## Part II. NOTIFICATION REQUIREMENTS

- A) Contents of Notification: For coverage under this general permit, a PAN must be submitted to the Ohio EPA and must contain the following information:
- 1) A completed General Isolated Wetlands Permit Application Form;
  - 2) An acceptable wetland delineation as performed in accordance with the 1987 U.S. Army Corps of Engineers wetland delineation manual and any other procedures and requirements adopted by the U.S. Army Corps of Engineers for delineating wetlands, including a determination from the U.S. Army Corps of Engineers that the wetlands proposed to be covered by this permit are isolated;
  - 3) A completed ORAM 5.0 wetland categorization form for each isolated wetland on the project site. Ohio EPA will make the final assignment of a wetland category through application of the Ohio Rapid Assessment Method for wetlands version 5.0;
  - 4) A project description;
  - 5) Maps showing project footprint/wetlands, including a U.S. Geological Survey topographic map, and other maps that may be pertinent to assessing the functional level of the isolated wetlands proposed to be covered under the PAN, such as county soil maps and National/Ohio Wetland Inventory maps;
  - 6) Photographs of each isolated wetland proposed to be covered by this permit with a photograph location map showing photograph number and direction the photograph was taken; and
  - 7) An acceptable mitigation proposal in accordance with ORC Sections 6111.022(D) and 6111.027.

- B) Fees: A PAN shall be accompanied by appropriate fees as specified in ORC Section 3745.113.
- C) Timing: Within fifteen (15) business days after the Director's receipt of a PAN, Ohio EPA shall notify the applicant whether the application is complete. If the application is not complete, Ohio EPA shall include in the notice an itemized list of the information or materials necessary to complete the application. If the applicant fails to provide the information or materials that are necessary to complete the application within sixty (60) days after the Director's receipt of the PAN, Ohio EPA may return the application and take no further action on it.

The Director shall notify the applicant within thirty (30) days after the Director's receipt of a complete PAN if the proposed filling of, or the discharge of dredged material into, the isolated wetlands will result in a significant negative impact on state water quality and, therefore, the project is not authorized under this general permit. If the applicant has not received notice that the project is not authorized by this general permit within thirty (30) days after the Director's receipt of a complete PAN, the applicant may move forward with the proposed project in accordance with the conditions stated in this general permit.

## Part III. PERMIT CONDITIONS

Projects authorized under this General Isolated Wetland Permit shall be subject to the following conditions:

- A) The project shall be constructed in accordance with the information as set forth in the complete PAN.
- B) The filling of, and discharge of dredged material into, Category 3 isolated wetlands is prohibited under this permit.
- C) Only suitable material, free of toxic contaminants in other than trace quantities, shall be used as fill material.
- D) The use of asphalt and rubber tires as fill is prohibited under this permit.
- E) In isolated wetlands, all hydric topsoil removed from a trench shall be separated and saved for later placement as the topmost backfill layer when the trench is refilled.

- F) The stockpiling of side-cast dredged material in isolated wetlands in excess of three (3) months is prohibited under this permit.

#### Part IV. MITIGATION

- A) Mitigation, in accordance with ORC Sections 6111.022(D) and 6111.027, is required in order to qualify for coverage under this general permit.
- B) Without the objection of the Director and at the discretion of the applicant, the applicant shall conduct either on-site mitigation, mitigation at an approved wetland mitigation bank within the same U.S. Army Corps of Engineers district as the location of the project described in the PAN, or off-site mitigation.
- C) Mitigation for the filling of, or the discharge of dredged material into, isolated wetlands covered under this permit shall be conducted in accordance with the following ratios:
- 1) For Category 1 and Category 2 isolated wetlands, other than forested Category 2 isolated wetlands, mitigation located at an approved wetland mitigation bank shall be conducted at a rate of two times the size of the area of isolated wetland that is being impacted;
  - 2) For forested Category 2 isolated wetlands, mitigation located at an approved wetland mitigation bank shall be conducted at a rate of two and one-half times the size of the area of isolated wetland that is being impacted;
  - 3) All other mitigation shall be subject to mitigation ratios established in division (F) of rule 3745-1-54 of the Administrative Code.
- D) Mitigation that involves the enhancement or preservation of isolated wetlands shall be calculated and performed in accordance with rule 3745-1-54 of the Administrative Code.
- E) An applicant shall demonstrate that the mitigation site will be protected in perpetuity and that appropriate practicable management measures, including reasonable vegetative buffers, are, or will be, in place to restrict harmful activities that jeopardize the mitigation.

#### Part V. LIMITATIONS

An applicant that qualifies for coverage under this general permit shall complete the permitted activity within two (2) years after the end of the thirty-day period following the Director's receipt of a complete PAN. If the applicant does not complete the permitted activity within that two-year period, the applicant shall submit a new PAN in accordance with ORC Section 6111.022. This two-year, project-specific time limitation should not be confused with the five-year effective period of this General Isolated Wetland Permit.

#### Part VI. FURTHER INFORMATION

Qualification for coverage under this general permit does not obviate the need to obtain other Federal, State, or local permits, approvals, or authorizations required by law.

# SPECIAL PROVISIONS

## ITEM SPECIAL - MODULAR EXPANSION JOINT

**MAH-80-0.97**  
**PID: 6080**

**DATE: 8-5-05**

### ITEM SPECIAL – MODULAR EXPANSION JOINT (August 5, 2005)

#### A. DESCRIPTION

Furnish all materials, services, labor, tools, equipment and incidentals necessary to design, fabricate, inspect, test, and install modular expansion joints in accordance with the plans and these notes. All requirements of Item 516 and Item 513, UF Level Fabrication, apply unless modified by these notes.

#### B. DESIGN

1. Prepare and check the design under the authority of an Ohio Registered Professional Engineer. The Registered Engineer shall seal, sign, and date the design calculations and shop drawings.
2. Design modular device main load-bearing beams, support beams, and welds for fatigue loading. Provide design calculations showing that the device meets the impact and fatigue requirements.
3. Spacing of the support beams is limited to 3'-0" centers under main load-bearing beams, unless results from fatigue testing of the actual welded connection details are provided to show that a greater spacing is acceptable. Design for fatigue cycle of 2,000,000+ truck load cycles or truck traffic count over the expected life of the structure, whichever is higher.
4. Include design calculations with the Contractor's submission of shop drawings per 513.06.
5. Provide a detailed installation procedure and include any specific manufacturer's notes necessary for completion of the work.
6. Design and test the modular joint components, joint armor, and anchorages according to the National Cooperative Highway Research Program (NCHRP) Report # 402, Appendix A and B.
7. Design temporary and field connections to the bridge to accommodate adjustments for roadway geometry and varying temperature.
8. Design for the anticipated movement of a concrete structure over a temperature range of 0° F to 100° F.
9. Supply support bar bearings to transfer the load from the support bars to the joint armor.
10. Supply equalization springs to counter the compression forces from the sealing elements and maintain equal expansion properties for each sealing element across the joint.
11. Supply control springs that work longitudinally to maintain equidistant spacing between

transverse separation beams.

12. Supply separation beams/transverse dividers/center beams to limit the total horizontal movement in any individual strip seal.
13. Supply strip-type seals connected to matching retainers connected to the joint armor and the separation beams. Do not exceed 3.15 inches of total horizontal movement in any individual strip seal.
14. Supply removable and replaceable neoprene seals, support bar bearings, and equalization springs.
15. Supply removable, sliding plates and connection devices to attach the sliding plates to the bridge parapets, as shown in the plans.
16. Set seals and retainers 1/8" lower than the roadway surface.
17. Design and fabricate the modular joint as a continuous, full length member without field splices, unless staged construction or excessive lengths (greater than 70'-0") prohibits monolithic fabrication.

**C. MATERIALS**

1. Furnish structural steel meeting ASTM A709, Grade 50. Furnish separation beams/transverse dividers/center beams, edge beams, and joint armor meeting Charpy V-Notch impact requirements per ASTM A709, Table S1.2, Zone 2 temperature range. Furnish tube sections meeting ASTM A501 or A500, Grade B.
2. Furnish ASTM A240, Type 304 stainless steel, 13 gage minimum thicknesses with No. 8 finish, for sliding surfaces in contact with PTFE.
3. Submit testing and reports by the manufacturer or an accredited testing laboratory for all elastomeric, PTFE, urethane, and preformed fabric materials used in all bearings and springs. The submission of material certification and testing data shall be per 501.06. Test these materials according to the National Cooperative Highway Research Program (NCHRP) Report # 402, Appendix A, "Guideline for Durability Testing of Springs and Bearings for MBEJ".
4. Furnish strip seals conforming to ASTM D5973. Submit certified test data per 501.06 from the manufacturer or an accredited laboratory. Lot size for ASTM D5973, Section 8, is one sample per joint. A sample is a piece 4 feet long with all manufactures' markings. The seal and retainer are an integral system supplied by one manufacturer.
5. Furnish seal retainers that are extruded, hot-rolled, or machined into a solid shape. Retainers manufactured from bent plate or built-up pieces are not acceptable. The internal dimensions

of the retainer shall be specified by the manufacturer to achieve positive seal anchorage.

6. Furnish separation beams/transverse dividers/center beams that are solid, non-welded, machined or extruded steel sections.
7. Furnish lubricant-adhesive that is a one-part moisture curing polyurethane compound meeting the requirements of ASTM D4070 and as specified by the seal manufacturer.
8. Furnish hardware conforming to ASTM A325, Type 1 galvanized or ASTM A449 galvanized.

**D. FABRICATION**

1. Fabricate modular joints according to 513.
2. Shop-assemble the modular joint with all components except neoprene seals per 513.24, except that full assembly is required for staged construction.
3. Joints in Strip Seals: No joints are allowed.
4. Joints in Retainers: Provide watertight, partial penetration welds around the outer periphery of the abutting surfaces. Make splices only in compression zones of the joint armor. Grind flush all welds in contact with the seal and joint armor. Do not use short pieces of retainers less than 6'-0" long, unless required at curbs or sidewalks. Do not provide additional splices in retainers at curb or sidewalk sections other than required for geometry.
5. Provide complete penetration welds for shop and field welds of center beams and joint armor; grind the welds to provide smooth transitions. Ultrasonically test 100% of the welds per the AASHTO/AWS Bridge Welding Code with tension acceptance criteria, witnessed by the Department.
6. Provide complete penetration welds for connections of separation beams/transverse dividers/center beams to support bars; grind the welds to provide smooth transitions. Ultrasonically test 100% of the welds per the AASHTO/AWS Bridge Welding Code with tension acceptance criteria, witnessed by the Department.
7. Temporary Supports: Fabricator-designed and installed supports are required to support shipping, erection, and construction forces without damage to the steel armor or coatings. Furnish supports that are adjustable for field temperature setting.

**E. COATING**

1. Galvanize or metalize all steel surfaces and components, except at stainless steel and PTFE sliding surfaces. These coating may be mixed on one assembly, if all similar components of the assembly have the same coating type.

2. Provide a galvanized coating per ASTM A123, with a minimum thickness of 4 mils. Clean excessive galvanizing as necessary to achieve proper mechanical movement and seal installation.
3. Provide a metalized coating per Society for Protective Coatings (SSPC) Specification SSPC-CS23.00 (March 17, 2003) for thermal spray metallic coatings. The coating shall be a minimum of 8 mils thick. The metalizing wire shall be 100% zinc. Areas of structural steel that are in contact with cast-in-place concrete shall have an additional coating. The coating shall be the epoxy intermediate coat specified in 708.02. The coating thickness will cover all peaks, valleys, and surface roughness attributed to metalizing.
4. Coating Repairs: Repair damaged coatings per ASTM A780, Annex A1, "Repair Using Zinc Based Alloys". The procedure shall be as follows: Remove surface contaminants; preheat to 600 degrees F; apply zinc coating by rubbing with a pure zinc stick or sprinkling zinc powder on the preheated surface; achieve a minimum coating thickness of 6 mils.
5. The galvanized or metalized coatings shall not be field painted.
6. Prior to shipping, protect the retainer grooves from construction debris by the installation of backer rods or other effective masking techniques.

**F. INSTALLATION**

1. Provide a joint manufacturer's technical representative to physically oversee the fabrication, installation, adjustment, and testing during all operations. Where special instructions are not contained herein or elsewhere in these notes, direction for the installation shall be according to the recommendations of the technical representative.
2. Coordinate and schedule the technical representative.
3. Install the superstructure supporting units before installing the modular joint. Position the joint to match roadway geometry, superstructure connections, and temperature opening. Take care to maintain exact alignment of adjacent ends of the armor and separation beams/transverse dividers/center beams for field-welded units. Provide temporary supports as directed by the manufacturer to maintain the proper positioning.
4. Perform concrete placement using vibration and hand work as necessary to achieve consolidation and eliminate air voids.
5. Place the deck concrete first. Check the abutment or adjacent span side of the modular joint for alignment and temperature adjustment. Temperature shall be measured at the underside of the concrete deck at each end and at mid-span to achieve the average superstructure temperature. Place the backwall or adjacent span concrete second. The manufacturer's representative shall check that temperature movement has not caused any damage to the bond

between the joint and the concrete.

6. Examine seal retainers for soil or defects that can damage the seal. Repair any defects as directed by the Manufacturer's representative.
7. Solvent clean the neoprene seal elements and the retainer grooves to remove oil, grease, or other soil immediately prior to installing the seals. Install seals using procedures and adhesive specified by the joint manufacturer. Keep the bonding surfaces clean, dry and warmer than 45° F.
8. Test the installed modular joint for leaks. Flood the total expansion joint length with water for a period of not less than one hour. Cover the entire joint system by either ponding or flowing water. Locate any points of leakage and take any and all measures necessary to stop the leakage. Perform this work at the Contractor's expense. Perform a second water test after all repairs have been made.

**G. METHOD OF MEASUREMENT**

Include the cost of all labor, materials, and equipment necessary to design, supply, install, and test a modular expansion joint according to the plans and these notes.

**H. BASIS OF PAYMENT**

The Department will pay for accepted quantities at the contract price for:

Item	Unit	Description
Special	Feet	Modular Expansion Joint

# **SPECIAL PROVISIONS**

**Underground Injection Control 5X13 Area Permit to  
Drill and Underground Injection Control 5X13 Area  
Permit to Operate Class V Injection Wells**

**FOR**

**CRS: MAH 80 - 0.97**

**PID NO.: 6080**

**OHIO EPA**

**PERMIT NUMBER: UIC 05-50-3000-PTD-V  
and UIC 05-50-3000-PTO-V**

**DATE: 10/31/2005**





State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center  
122 S. Front Street  
Columbus, Ohio 43215

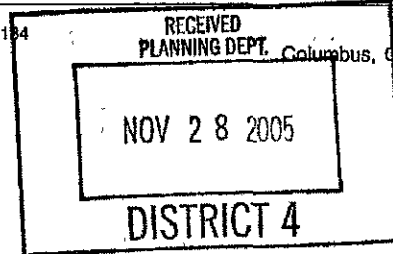
TELE: (614) 644-3020 FAX: (614) 644-3134  
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049  
Columbus, OH 43216-1049

October 31, 2005

Mr. Mohamed Darwish  
District Four Deputy Director  
Ohio Department of Transportation  
District 4  
705 Oakwood Street  
Ravenna, Ohio 44266



CERTIFIED MAIL  
7001194000069358924

Re: Ohio Department of Transportation  
Ohio Permit Numbers:  
UIC 05-50-3000-PTD-V  
UIC 05-50-3000-PTO-V

Dear Mr. Darwish:

The applications submitted for a Underground Injection Control (UIC) Class V 5X13 Area Permit to Drill/Install and a Class V 5X13 Area Permit to Operate have been reviewed by Ohio EPA's Division of Drinking and Ground Waters, Underground Injection Control Unit. The UIC Unit has recommended that the Director issue the above referenced Class V Permits as your proposals comply with all applicable Ohio UIC Rules.

Therefore, a Class V 5X13 Area Permit to Drill/Install and a Class V 5X13 Area Permit to Operate are issued to you today in **FINAL** form. These permits are effective on the date of issuance. A signed copy of the final permits are enclosed.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission (Commission) pursuant to Section 3745.04 of the Ohio Revised Code. This appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. A copy of the appeal is also requested to be sent to the Office of the Attorney General, Environmental Enforcement Section. An appeal may be filed with the Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

Bob Taft, Governor  
Bruce Johnson, Lieutenant Governor  
Joseph P Koncellik, Director

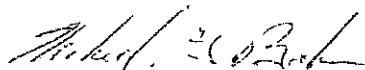
Mr. Mohamed Darwish

October 31, 2005

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If you should have any questions, please do not hesitate to contact Lindsay Taliaferro III, UIC Manager or Valerie Orr of my staff at (614) 644-2752.

Sincerely,



Michael G. Baker, Chief  
Division of Drinking and Ground Waters

MGB:vo

Enclosures

cc: ~~Edward W. DeJey, Jr., District 4 Environmental Coordinator~~  
Brian Peck, ODOT District 4  
William Skowronski, Chief, NEDO  
Bob Knipmeyer, Director's Office  
Lindsay Taliaferro III, Ohio EPA DDAGW  
Valerie Orr, Ohio EPA DDAGW

MAH-80-0.97.issuance

OHIO ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF DRINKING AND GROUND WATERS  
UNDERGROUND INJECTION CONTROL 5X13 AREA PERMIT TO DRILL AND AREA  
PERMIT TO OPERATE CLASS V INJECTION WELLS

Ohio Permit Nos. UIC 05-50-3000-PTD-V  
UIC 05-50-3000-PTO-V

OHIO E.P.A.  
OCT 31 2005  
DIRECTOR'S JOURNAL  
ENTERED

**Applicant:** Ohio Department of Transportation

**Address:** 2088 South Arlington Road  
Akron, Ohio 44306

**Telephone:** (330) 786-3100

**Facility Name:** MAH-80-0.97

**Facility Location:** Latitude: North 41° 07' 16" and North 41° 07' 25" ,  
Longitude: 80° 47' 29" and 80° 46' 54" Austintown  
Township, Mahoning County

**Description:** Up to 2,000 Class V 5X13 Underground Injection Wells shall be installed to inject flyash/cement grout to stabilize the project area for two segments of Interstate Route 80 (IR-80) between Meander Creek Reservoir and the State Route 46 interchange. The work is to be completed to mitigate a threat of subsidence resulting from the collapse of abandoned underground coal mines.

**Issuance Date:** October 31, 2005

**Effective Date:** October 31, 2005

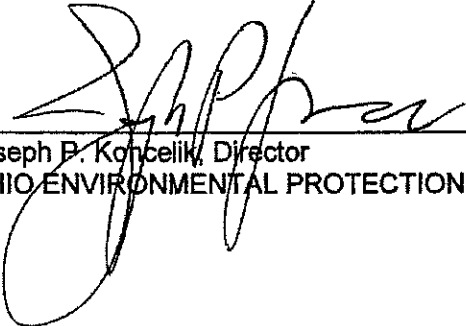
**Expiration Date:** May 1, 2008

The above named applicant is hereby ISSUED a 5X13 Area Permit to Drill and a 5X13 Area Permit to Operate for the above described underground injection wells pursuant to Sections 6111.043 and 6111.044 of the Ohio Revised Code and to Chapter 3745-34 of the Ohio Administrative Code. Issuance of this 5X13 Area Permit to Drill and 5X13 Area Permit to Operate does not constitute expressed or implied approval or agreement that, if constructed and/or modified in accordance with the specifications and/or information accompanying the permit applications, the above described activity will be in compliance with applicable State and Federal laws and rules and regulations. This 5X13 Area Permit to Drill and 5X13 Area Permit to Operate is issued subject to the attached conditions which are hereby incorporated and made a part hereof.

I certify this to be a true and accurate copy of the  
official document as filed in the records of the Ohio  
Environmental Protection Agency

By: Donna Backer Date 10/31/05

Expiration Date: These permits shall expire at midnight on the expiration date indicated above, unless terminated or modified under Chapter 3745-34 of the Ohio Administrative Code.



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Joseph P. Konecni, Director  
OHIO ENVIRONMENTAL PROTECTION AGENCY

**PART I**  
**GENERAL PERMIT COMPLIANCE**

**A. EFFECT OF PERMIT**

The permittee is authorized to engage in the drilling and operation of 5X13 Class V underground injection wells in accordance with Chapter 3745-34 of the Ohio Administrative Code (OAC) and the conditions of these permits. Notwithstanding any other provisions of these permits, in accordance with OAC Rule 3745-34-07, the permittee shall not construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of injection, or formation fluids into underground sources of drinking water (USDW), or if the presence of that material may cause a violation of any primary drinking water regulation under OAC Chapter 3745-81 or may otherwise adversely affect the health of persons. Any underground injection activity not specifically authorized in these permits is prohibited. Compliance with these permits during their term constitutes compliance for purposes of enforcement, with Sections 6111.043 and 6111.044 of the Ohio Revised Code (ORC). Such compliance does not constitute a defense to any action brought under ORC Sections 6109.31, 6109.32 or 6109.33 or any other common or statutory law other than ORC Sections 6111.043 and 6111.044. Issuance of these permits does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law. Nothing in these permits shall be construed to relieve the permittee of any duties under applicable state and federal law or regulations.

**B. PERMIT ACTIONS**

1. Modification, Revocation, Reissuance and Termination. The Director may, for cause or upon request from the permittee, modify, revoke and reissue, or terminate these permits in accordance with OAC Rules 3745-34-07, 3745-34-23, and 3745-34-24. Also, the permits are subject to minor modifications for cause as specified in OAC Rule 3745-34-25. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes, or anticipated noncompliance on the part of the permittee does not stay the applicability or enforceability of any permit condition.
2. Transfer of Permits. These permits may be transferred to a new owner or operator only if they are modified or revoked and reissued pursuant to OAC Rule 3745-34-22(A), 3745-34-23, 3745-34-24, 3745-34-25(D) or 3745-34-26(L)(3), as applicable.

C. **SEVERABILITY**

The provisions of these permits are severable, and if any provision of these permits or the application of any provision of these permits to any circumstance is held invalid, the application of such provision to any other circumstances and the remainder of these permits shall not be affected thereby.

D. **CONFIDENTIALITY**

In accordance with OAC Rule 3745-34-03 any information submitted to the Ohio EPA pursuant to these permits may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping words "confidential business information" on each page containing such information. If no claim is made at the time of submission, the Ohio EPA may make the information available to the public without further notice. If a claim is asserted, documentation for the claim must be tendered and the validity of the claim will be assessed in accordance with the procedures in OAC Rule 3745-34-03. If the documentation for the claim of confidentiality is not received, the Ohio EPA may deny the claim without further inquiry. Claims of confidentiality for the following information will be denied:

1. The name and address of the permittee;
2. Information which deals with the existence, absence or level of contaminants in receiving water.

E. **DUTIES AND REQUIREMENTS (OAC RULE 3745-34-26)**

1. **Duty to Comply.** The permittee shall comply with all applicable UIC regulations and conditions of these emergency permits, issued in accordance with OAC Rule 3745-34-19. Any permit noncompliance constitutes a violation of ORC Chapter 6109. or 6111. and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application. Such noncompliance also may be grounds for enforcement action under other applicable state and federal law.
2. **Penalties for Violations of Permit Conditions.** Any person who violates a permit requirement is subject to injunctive relief, civil penalties, fines and/or other enforcement action under ORC Chapters 6111., 6109., or 3734. Any person who knowingly or recklessly violates permit conditions may be subject to criminal prosecution.
3. **Continuation of Expiring Permits. Duty to Reapply.** If the permittee wishes to continue an activity regulated by these permits after the expiration date of these permits, the permittee shall submit a complete application for new permits.
4. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense, for a permittee in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of these permits.
5. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or correct any

adverse impact on the environment resulting from noncompliance with this permit.

6. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of these permits. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of these permits.
7. Duty to Provide Information. The permittee shall furnish to the Director, within a time specified, any information which the Director may request in order to determine whether cause exists for renewing, modifying, revoking and reissuing, or terminating these permits. To determine compliance with these permits, or to issue new permits the permittee shall furnish to the Director, upon request, copies of all records required to be kept by these permits.
8. Inspection and Entry. The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:
  - a. Enter permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of these permits;
  - b. Have access at reasonable times to and copy any records that are kept under the conditions of these permits;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under these permits; and
  - d. Sample or monitor at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by ORC Chapter 6111. and OAC Chapter 3745, any substances or parameters at any location.
9. Records.
  - a. The permittee shall retain copies of records of all monitoring information, including all calibration and maintenance records and copies of all reports required by these permits for a period of at least five (5) years from the date of the sample, measurement or report.
  - b. The permittee shall maintain copies of records of all data required to complete the permit application forms for permits and any supplemental information submitted under OAC Rule 3745-34-16 for a period of at least five (5) years from the date the applications were signed. These periods may be extended by request of the Director during that period of time.
  - c. The permittee shall retain copies of records concerning the nature and composition of all injected fluids for three (3) years after the grouting has been completed.
  - d. The permittee shall continue to retain such copies of records after the retention period specified by paragraphs (a) to (c) above, unless he delivers the records to the

Director or obtains written approval from the Director to discard the records.

- e. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
  - f. Records of monitoring information for grouting shall include the following applicable as pursuant to OAC Rule 3745-34-26(J)(1):
    - i. The date, exact place, and time of sampling or measurements;
    - ii. The name(s) of the individual(s) who performed the sampling or measurements;
    - iii. A precise description of sampling methodology;
    - iv. The date(s) analyses or measurements were performed;
    - v. The name(s) of the individual(s) who performed the analyses or measurements and the laboratory that performed the analyses or measurements;
    - vi. The analytical techniques or methods used; and
    - vii. All results of such analyses.
10. Signatory Requirements. All reports or other information, required to be submitted by these permits or requested by the Director, shall be signed and certified in accordance with OAC Rule 3745-34-17.
11. Reporting Requirements.
- a. Planned Changes. The permittee shall give written notice to the Director, as soon as possible, of any planned physical alterations or additions to the permitted facility. Within ten (10) days of the verbal notification, or of the commencement of construction, the permittee shall give written notice to the Director with justification of any planned physical alterations to the permitted well(s).
  - b. Anticipated Noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
  - c. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of these permits shall be submitted no later than thirty (30) days following each schedule date.
  - d. Twenty-four (24) Hour Reporting.
    1. The permittee shall report to the Director any noncompliance which may endanger health or the environment. Appropriate information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported orally within 24 hours:
      - i. Any monitoring or other information which indicates that any contaminant may cause an endangerment to an underground source of drinking water.
      - ii. Any noncompliance with a permit condition, or malfunction of the injection system, which may cause fluid migration into or between underground



sources of drinking water.

2. A written submission also shall be provided within five (5) business days of the time the permittee becomes aware of the circumstances of such noncompliance. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, the anticipated time it is expected to continue; and if the noncompliance has or has not been corrected, and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance.
- e. Other Noncompliance. The permittee shall report all other instances of noncompliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain the information listed in permit condition 11(d)(2) above.
- f. Other Information. When the permittee becomes aware of failure to submit any relevant facts in the permit applications or that incorrect information was submitted in a permit application or in any report to the Director, the permittee shall submit such facts and corrected information within ten (10) days.
- g. The Director shall be notified immediately, in writing, if the person responsible for certification of documents pursuant to OAC Rule 3745-34-17 is changed.

**PART II**  
**SPECIAL CONDITIONS**

**A. WELL CONSTRUCTION AND COMPLETION**

All well construction and operations shall be conducted in accordance with the project plans, submitted with the application for this permit. Activities conducted under this permit include, but are not limited to, the following:

1. Injection Borehole Drilling
  - a. The injection boreholes shall be drilled to depths of approximately 25 to 150 feet below ground surface.
  - b. Eight (8) inch diameter boreholes shall be drilled through the soil and shall penetrate approximately eighteen (18) inches into the bedrock. Six (6) inch diameter boreholes shall be advanced through the bedrock to the mine void.
  - c. Temporary casing of Steel, Poly Vinyl Chloride (PVC) or High Density Polyethylene (HDPE) shall be installed to support the boreholes through the soil overburden.
2. Grout Placement
  - a. A tremie pipe shall be inserted through the six (6) inch casing to the elevation of the mine and a grout or concrete pump will be used to inject grout to seal any mine voids. After filling the mine void, the tremie pipe will be gradually withdrawn in four (4) foot increments and the borehole will be backfilled with grout. The temporary casing shall be removed as the borehole is backfilled.
  - b. If the grout is required to be pumped under pressure, the maximum allowable injection pressure is limited to 0.75 psi per foot of depth of the proposed injection wells so as not to exceed the fracture gradient of the formation.
3. Details of well construction and completion, and injectate (grout) composition shall be monitored and reported as required in Part II (B) of this permit.
4. The permittee is authorized to construct and operate a total of 2000 5X13 Class V UIC wells at the locations specified in the application for, and on the cover page of this permit.

**B. REPORT OF DATA COLLECTED DURING DRILLING/INSTALLATION**

1. The permittee shall notify the Director of completion of activities conducted under this permit. Notification shall be:
  - a. Provided orally within 48 hours of completion; and
  - b. Provided in writing with ten (10) days of completion.
2. A drilling and completion report shall be submitted to:

Ohio EPA Division of Drinking and Ground Waters  
Underground Injection Control Unit  
122 S. Front Street  
P.O. Box 1049  
Columbus, Ohio 43216-1049

within sixty (60) days of the completion of this grouting project. The following information shall be included in the report:

3. The composition of each grout mix used including the quantities of cement, flyash, fine aggregate, coarse aggregate and water per cubic yard.
4. The total number of wells drilled;
5. The depth of each well drilled;
6. The volume of grout used, specifically,
  - a. The volume of neat cement grout;
  - b. The volume of barrier grout; and
  - c. The volume of production grout.
7. A diagram identifying the general locations of the injection wells by grout type.

**C. AGENCY INVOLVEMENT**

Personnel from the Ohio EPA have unrestricted right of entry to the wells.

**D. General**

The wells shall be constructed in such a manner that prevents the movement of fluid into any underground source of drinking water if that fluid may cause a violation of any primary drinking water rule under Chapter 3745-81 of the Ohio Administrative Code or may otherwise adversely affect the health of persons.

Efforts shall be made to identify private water wells in the immediate vicinity of the grouting project to assure that private drinking water wells will not be negatively impacted in terms of quantity or quality.

Issuance of these permits presumes compliance with all applicable sections of OAC Rules 3745-34-20, 3745-34-26, all parts of OAC Rule 3745-34-27, and Chapter 6111. of the Ohio Revised Code.

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