

**DRAFT**  
**COMPATIBILITY DETERMINATION**

**Use:** Right-of-Way for Praxair Duel Pipeline System Project

**Refuge Name:** Brazoria National Wildlife Refuge

**Establishing and Acquisition Authority(ies):**

Brazoria NWR was established next on October 20, 1966, under provisions of the Migratory Bird Conservation Act (16 U.S.C. 712d), the Refuge Recreation Act (16 U.S.C. 460k-1 and 16 U.S.C. 460k-2), and the Fish and Wildlife Act of 1956 (16 U.S.C. 742(a)(4) and 16 U.S.C. 742(b)(1)).

**Refuge Purpose(s):**

1. "...for use as an inviolate sanctuary,... for any other management purposes,... for migratory birds." (Migratory Bird Conservation Act [16 U.S.C. 712d])
2. "...for the development, advancement, management, conservation, and protection of fish and wildlife resources..." [16 U.S.C. 742(a)(4)] and "...for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude..." [16 U.S.C. 742(b)(1)] (Fish and Wildlife Act of 1956)
3. "...suitable for- (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species..." [16 U.S.C. 460k-1]; "...the Secretary... may accept and use... real... property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donor..." [16 U.S.C. 460k-2] (Refuge Recreation Act, as amended [16 U.S.C. 460K – 460k-4]).

**National Wildlife Refuge System Mission:**

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

**Description of Use:**

**(a) What is the use?**

Praxair proposes to construct a 49 mile Dual Pipeline project, including a 24-inch (in) nitrogen pipeline and a 14-in hydrogen pipeline between their facilities in Texas City and customers in Freeport, TX. The pipelines will be constructed within an existing 300 ft wide ROW corridor that contains 21 other pipelines. A 4.3 mile section of this corridor traverses the Brazoria NWR in southeastern Brazoria County, Texas. Praxair proposes to acquire a new Right-of-Way (ROW), overlaying the existing and maintained ROW for two additional pipelines, giving them ability to install, own and operate two pipelines within a 10' ROW. The construction of the new pipelines will parallel existing pipelines along the entire route. Temporary and short-term

disturbance of wildlife and adjacent coastal and salty prairie, freshwater wetlands, and saltmarsh habitats will occur during construction activities.

**(b) Where is the use conducted?**

The proposed dual pipelines will be laid parallel and simultaneously in accordance with the Construction Plan for Crossing the Brazoria National Wildlife Refuge (BNWR) from FM 2004 to Austin Bayou. Access to the refuge begins at the bore entry and temporary work space (TWS) located north of FM 2004. After crossing FM 2004, the pipeline continues southwest, through the refuge, crossing Ditch 10 via horizontal directional drill (HDD) and CR 208 via bore. The pipeline ties into a proposed valve station west of CR 208 and continues southwest in the existing corridor. Otter Slough is crossed twice by the pipelines, both times using HDD, before this route continues southwest to Austin Bayou. The HDD to cross Austin Bayou enters from the south (refuge) bank and exits on the north bank of Austin Bayou, on the Refuge. Construction includes the HDD entry pad and associated TWS located on the south bank of Austin Bayou.

**(c) When is the use conducted?**

Short-term use of lands will occur during the construction phase, which is estimated to last 4 to 6 months and will occur during the time frame from April, 2016 thru October, 2016. The pipeline easement will be long-term and remain in place for the life of the pipeline. The ROW will be maintained per Texas Railroad Commission standards; which includes periodic mowing during the growing season. Pipeline maintenance, including pipeline wall tests will occur during the life of the pipeline. One valve station above ground monitoring will be placed adjacent to CR 208. Over the life of the pipeline, replacement of sections may occur, requiring further short-term disturbance.

**(d) How is the use conducted?**

The Service would sell a 10' Right-of-Way to Praxair for the construction of the dual pipelines within the existing and maintained pipeline ROW corridor. The Texas Mid-coast NWR Complex would authorize the temporary surface use of the adjacent ROWs through a Special Use Permit (SUP) for the installation of the new pipeline. Additional Special Use Permits will be issued for maintenance on the pipeline that may, or may not, include access or use of Service lands outside of the ROW easement. Special Use Permits will contain stipulations to avoid or minimize potential adverse impacts to refuge resources during construction, including, but not limited to, the following; double ditching, laying board matting for access, providing an environmental monitor to be onsite during all construction activities, and using dry "pipe push" methods for installation to reduce heavy equipment and vehicular traffic within the southernmost ROW.

**(e) Why is this use being proposed?**

The existing pipeline ROW through the refuge provides a route for the proposed new pipeline within an existing and maintained pipeline corridor. The 4.3 miles of Refuge ROW would be part of the 49 mile long dual pipeline project carry nitrogen (N<sub>2</sub>) and hydrogen (H<sub>2</sub>) from Texas City to customers in Freeport, Texas for the production of ammonia. The existing ROW includes 21 other pipelines currently owned and operated by several different operators. Allowing access across Service lands for installation of the proposed pipelines will enable

Praxair to follow a previously cleared and maintained ROW and therefore, alleviate the need to establish a new ROW elsewhere on the landscape. The route of the proposed new pipeline across refuge lands will fall entirely within the existing and maintained ROW, which will help to prevent an additional ROW from being cleared.

**Availability of Resources:**

The Brazoria NWR is staffed by both a Refuge Manager and assistant Wildlife Refuge Specialist. Along with the Texas Mid-coast Oil and Gas Specialist, they will oversee the construction and any future maintenance of the pipeline and ROW. During construction, estimated cost for providing oversight is \$20,000 which will come from the Oil and Gas Restoration Account. During future years where maintenance of the ROW and pipeline will occur, costs for managing the use is estimated at \$500.00 annually. Requirements in time, materials, and supplies needed to manage and ensure the success of this project are within existing Refuge resources.

**Anticipated Impacts of the Use:**

Temporary and Long-term Impacts:

There are temporary unavoidable impacts to fish and wildlife populations and their habitats as a result of disturbance from proposed activities. Damages to wildlife habitats on the refuge, which we reasonably anticipate from operations associated with proposed activities, include, but are not limited to, temporary loss of use for wildlife, temporary impacts to vegetation from matting the work area and removal of vegetation from the open ditch area. Impacts include those associated with disturbance along the edges of the ROW during construction and displacement may impact wildlife populations beyond the time of construction.

The Special Use Permit contains stipulations to avoid or minimize potential adverse impacts during construction and maintenance activities. Some impacts will be minimized by; double ditching all open trenches so that surface soils will be placed back on top, utilizing matting across the entire permanent and temporary work space to reduce the impact from heavy and reoccurring traffic down the right of way; utilizing dry “pipe push” methods for installation to reduce heavy equipment traffic within the ROW through the sensitive saltmarsh habitat, and using horizontal directional drilling under all wetlands, in addition to the presence of a third-party environmental monitor. The project is estimated to require 4 months to complete construction. Vegetation on the ROW is expected to return to preconstruction conditions within a full growing season.

Long-term impacts include disturbance associated with periodic maintenance of the ROW, which is typically mowing on an annual basis. Because it is within an existing and maintained corridor, the area is already mowed by maintenance crews which will continue, so no additional access or disturbance above current conditions will occur.

Cumulative Impacts:

The cumulative impacts of the proposed activities are minimal, primarily because the proposed new pipeline ROW is within the existing and maintained corridor. However, Maintained Rights-of-Way result in semi-permanent to permanent fragmentation of wildlife habitat and contribute to loss of habitat value for migratory birds and resident wildlife populations, as well as

compromise ecological integrity and services provided at the ecosystem scale. In addition to stipulations as per the SUP, in order to establish compatibility, a damages assessment has been completed which requires compensatory mitigation for replacement of lost habitat values to ensure no net loss of habitat quantity and quality.

**Public Review and Comment:**

**Determination (check one below):**

Use is Not Compatible

Use is Compatible with Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

To ensure compatibility with National Wildlife Refuge System and San Bernard NWR goals and objectives, the activity can only occur under the following stipulations:

1. Per the U.S. Fish & Wildlife Service Policy 603 FW 2, sections C and D, Praxair will provide for replacement of lost habitat values through conservation of additional habitat coastal/salty prairie or saltmarsh ecosystem. Appropriate measures will be adopted to avoid or minimize adverse impacts to refuge resources and provisions included to ensure no net loss of habitat quantity and quality.
2. Replacement areas will be afforded permanent protection as part of the San Bernard or Brazoria National Wildlife Refuge.
3. Additional stipulations are attached and will be included as conditions of the Special Use Permit. These include, but are not limited to, the following;
4. Construction and maintenance is confined to daylight hours.
5. Praxair will hire an Environmental Monitor to be on site during all construction to identify sensitive habitats requiring board matting, document and oversee any and all damage to the habitat that will require immediate rehabilitation and/or restoration including rutting, petroleum or hazardous material spills and avoidance areas due to species of concern.
6. All open ditches will be double ditched so that top soil can be placed back on top to enable rapid revegetation.
7. All permanent and temporary work space will be matted to ensure rapid revegetation with native species as specified by the Refuge Manager.
8. All mats will be new or cleaned and all equipment cleaned before entering the refuge to reduce the potential spread of invasive species.
9. Harassment of wildlife or excessive damage to vegetation is prohibited.

**Justification:**

The proposed new pipeline ROW is within an existing and maintained pipeline ROW corridor. This new pipeline ROW is found to be compatible with the addition of stipulations to avoid or minimize potential adverse impacts and provisions for replacement of lost habitat values through the damages assessment. Appropriate measures will be adopted to (1) avoid or minimize adverse resource impacts and include provisions to ensure no net loss of habitat quantity and quality; and (2) ensure restored or replacement areas are afforded permanent protection as part of the national wildlife refuge. Temporary use of adjacent lands includes the ROWs belonging to Buckeye, Exxon and Dow. There will be no additional conversion of natural habitats to maintained

habitats associated with this project. Alternative routes would involve further disturbance and fragmentation of habitats within the coastal and salty prairie ecosystem. Through the compatibility determination process, Brazoria National Wildlife Refuge has determined that the installation of this proposed new pipeline, in accordance with the stipulations provided above, will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the Refuge.

**Signature: Refuge Manager** \_\_\_\_\_  
(Signature and Date)

**Concurrence: Regional Chief** \_\_\_\_\_  
(Signature and Date)

**Mandatory 15-year Re-Evaluation Date:** \_\_\_\_\_