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September 23, 2016

Ms. Sheila Tsai
EPA Region 9 (AIR-3)
75 Hawthorne Street
San Francisco, CA 94105

Re: Federal Minor New Source Review Program in Indian Country
Application for New Construction
Fluidic, Inc., 8425 N. 90th 5treet, 5uite #4, Scottsdale, Arizona 85258
EPA ID# AZR000512061

Dear Ms. Tsai:

On behalf of Fluidic, Inc. (Fluidic), GZA GeoEnvironmental, Inc. (GZA) is submitting the attached Minor New Source Review New Construction Application for proposed construction of new equipment at an existing source at Fluidic's facility located at 8425 N. 9th Street, Suite #4, Scottsdale, Arizona 48258. Fluidic's facilities are located on tribal lands in EPA Region 9.

As a result of a 2015 facility inspection by the Salt River Pima-Maricopa Indian Community, Community Development Department (CDD), the CDD requested that Fluidic evaluate its operations with respect to air permitting requirements. USEPA issued an existing source registration for Fluidic on April 4, 2016, with an effective date of February 17, 2016.

Due to increased demand for the product and improvements to the manufacturing process, Fluidic is now proposing to install equipment that would allow for increased production of battery sheets. The new line would be a complete replacement of the existing equipment. The new emission estimates do not change the facility's status from being considered an existing source requiring evaluation under the Federal Minor New Source review program in Indian Country.

In accordance with previous discussions regarding the need to request that certain elements of the Fluidic Energy (Fluidic) minor new source review permit application be kept as "Confidential Business Information" (CBI), Fluidic has enclosed two copies of the permit application. One copy has been marked CBI "not for public disclosure" and one copy is unmarked and designed to be retained in the publicly available files.

Fluidic understands that certain stipulations must be met in order for EPA to substantiate a CBI request. Fluidic is in receipt of EPA's document "Instructions for Claiming Confidentiality" pursuant to 40 CFR 2.204(e) and is providing the following information in accordance with the nine listed items in the document. Please see below:

1. The portions of the information alleged to be entitled to confidential treatment.

Information pertaining to the specific raw materials utilized in the manufacture of air cathodes at Fluidic is requested to be treated as confidential, including the material names and trade names of the raw materials and their associated safety data sheets. Fluidic

discovered a combination of process materials that are unique to the metal air battery manufacturing sector. Disclosure of this information could provide competitors skilled in the art of similar material processing an important indication as to the type of processing being employed by Fluidic to produce the cathode.

2. **The period of time for which confidential treatment is desired by the business (e.g., until the occurrence of a specific event, or permanently).**

Fluidic requests this information to be considered confidential for the life of the company.

3. **The purpose for which the information was furnished to EPA and the appropriate date of submission, if known.**

The information is part of a minor new source review permit application, submitted as part of this correspondence, on September 23, 2016.

4. **Whether a business confidentiality claim accompanied the information when it was received by EPA.**

Yes, Fluidic is submitting a business confidentiality claim concurrently with submission of the application information.

5. **Measures taken by you to guard against the undesired disclosure of the information to others.**

Fluidic takes multiple and significant measures to guard against disclosure of our process and material information to others, including:

- Raw material information (suppliers and grades) is coded for most internal use with detailed information protected except for select, "need to know" individuals;
- Scrap material is segregated from trash for non-public destruction;
- Processing and material details which reference cathode production access restricted to only those individuals within the company that have specific roles related to cathode production; and
- Any material and/or processing information concerning cathode production is only disclosed to individuals with non-disclosure agreements in place.

6. **The extent to which the information has been disclosed to others and the precautions taken in connection therewith.**

Cathode production information is disclosed on a very limited basis. When the information is disclosed, only specific, as needed information is provided, and only with confidentiality agreements in place.

7. **Pertinent confidentiality determinations, if any, by EPA or other Federal agencies, and a copy of any such determination or reference to it, if available.**

This item is not applicable.

8. **Whether you assert that disclosure of this information would be likely to result in substantial harmful effects on your business's competitive position, and if so, what those harmful effects would be, why they should be viewed as substantial; and an explanation of the casual relationship between disclosure and such harmful effect.**

A significant competitive advantage of the business is based on a robust, long life gas diffusion electrode (air cathode). As mentioned previously, disclosure of this information may provide competitors skilled in the art of similar material processing an important direction as to the type of processing being employed to produce the cathode. The type of production being employed gives a cost and performance advantage vs competitors in the metal air battery field.

9. **Whether you assert that the information is voluntarily submitted information and if so, whether any disclosure of the information would tend to lessen the availability to EPA of similar information in the future. "Voluntarily submitted information" is defined in 40 CFR Section 2.201(i) as business information in EPA's possession...**

   a. **The submission of which EPA has no statutory or contractual authority to require.**

   b. **The submission of which was not prescribed by statute or regulation as a condition of obtaining some benefit (or avoiding some disadvantage) under a regulatory program of general applicability, including such regulatory programs as permit, licensing, registration, or certification programs, but excluding programs concerned solely or primarily with the award or administration by EPA of contracts or grants.**

Based upon the definition of voluntarily submitted information, Fluidic does not believe that this information meets such definition. The information submitted is required as part of the minor new source review permit process. Similarly, the information is prescribed by regulation as a condition of obtaining a permit pursuant to the NSR program.

Please feel free to contact me at 734-779-2405 to discuss if Region 9 agrees that the information contained herein can be considered confidential business information. Should you have any questions or require further information, Fluidic respectfully requests that none of the enclosed information be made publicly available until a confidentiality determination can be granted.

Sincerely,
GZA GEOENVIRONMENTAL, INC.

Jennifer A Calnen

Jennifer A. Calnen

Cc: Michele F. Johnson, Artemis
Bill Fulton, Fluidic

Enclosures: Minor New Source Application for Fluidic
Minor New Source Application for Fluidic with CBI

MINOR NEW SOURCE APPLICATION FOR FLUIDIC

FLUIDICENERGY™

MINOR SOURCE PERMIT APPLICATION

September 2016

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APPENDICES

1.0 INTRODUCTION

Fluidic, Inc., doing business as Fluidic Energy (FE), is located in Scottsdale, Arizona and focuses on the development of energy storage solutions, based on its proprietary metal-air battery technology and integrated intelligence.

FE currently utilizes a process involving carbon black and solvent to produce cured sheets that are used in energy storage devices. The process includes introducing these materials into a blending process, followed by several steps (e.g., press, sheeter) to produce a final product for drying in an electric oven. FE submitted an application for a Registration for Existing Sources permit on February 8, 2016 for this manufacturing process.

Due to an increased demand for this technology, FE is now proposing to install equipment that would allow for increased production of battery sheets. The new line would be a complete replacement of the existing equipment. The facility has developed emission estimates and profiles, which are included herein, to obtain an air permit which will allow for an increase in allowable emissions from the existing source under the Federal New Source Review program in Indian Country.

It should be noted that the area where FE is located (Scottsdale) is considered a marginal non-attainment area with respect to ozone (volatile organic compounds, "VOCs", as precursors).

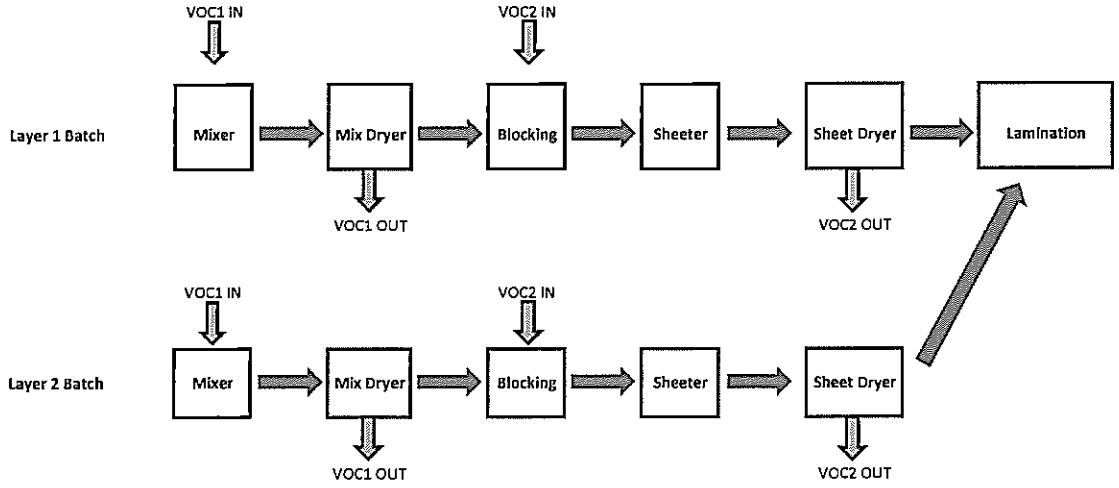
Section 2.0 of this document presents a Process Description. Section 3.0 presents the basis for emission estimates for criteria pollutants from the proposed operations. Section 4.0 addresses Indian Country specific air regulatory requirements. Section 5.0 addresses Federal regulatory applicability including New Source Review (NSR) and Section 112 (g) MACT requirements. A completed Registration application form is included in Appendix A to this document.

2.0 PROCESS DESCRIPTION

As indicated previously, FE manufactures a carbon/polymer fabric battery substrate (sheets) utilizing carbon black and solvents. The proposed manufacturing process will utilize alcohol (VOC1) and naphtha (VOC2) as solvents to allow the mixing of carbon and various polymers which are then processed into a sheet-like material. The sheets are cured, cut, and eventually used in energy storage devices. The manufacturing process requires a two-part processing system referred to as Layer 1 and Layer 2, although for final assembly the ratio of Layer 1 and Layer 2 will not always be 1:1 (e.g., there may be a single sheet from Layer 1 processing and two sheets from Layer 2 processing). An overview of the manufacturing process is presented below in a flow diagram.

2.1 PROCESS FLOW

To manufacture the battery substrate, two manufacturing lines will operate simultaneously. The proposed operation will first combine carbon and polymer binders with alcohol in a mixer. This material will be dried in an electric oven and then placed in a mixer along with naphtha. The material in the mixer is mixed into a paste material, which is then pressed into a block. The block is fed through a sheeter, dried to cure and drive off the naphtha, and then sheets from Layer 1 and Layer 2 are laminated together.



2.2 EMISSION UNITS

The manufacturing of the battery substrate (sheets) results in emissions of volatile organic compounds (VOC) from each drying process (i.e., alcohol cure and final naphtha cure). FE will account for VOC losses based on a material balance, therefore any alcohol or naphtha used is expected to be released as VOC. Additionally, small amounts of alcohol are used for wiping and cleaning operations. This usage contributes to the VOC emission profile, as well.

2.3 AIR POLLUTION CONTROL EQUIPMENT

FE is not planning to rely on any emission controls for material handling or processing operations.

3.0 EMISSION ESTIMATES

Emissions from the proposed process consist of volatile organic compounds (VOC). No fuel combustion sources or other emission sources will be used and therefore, this application does not address other criteria pollutants or greenhouse gas emissions.

3.1 VOLATILE ORGANIC COMPOUNDS (VOC)

As stated previously, FE will rely upon alcohol and naphtha as lubricants for the blending, pressing and sheeting processes, which will result in emissions of VOC from process operations. Alcohol will be introduced into the system via the initial mixing process, and the material will be cured (i.e., liquid volatilized) in an electric oven. Subsequently, naphtha will be added during a second mixing phase with the resultant dried material; the product is then formed into pellets, sheeted, and cured (i.e., naphtha is volatilized) in an electric oven.

3.1.1 Actual Annual Emissions

The typical operating schedule anticipated with start-up of the new line at FE is 22 hours per day, 7 days per week. Production at the facility is based upon the capacity and cycle time of the sheeter, which processes blocks into sheets. The sheeter for Layer 1 can process 5.5 batches per day, or 2,002 batches per year. The sheeter for Layer 2 can process 3.865 batches per day or 1,407 batches per year. This schedule results in annual VOC emissions from the facility on the order of 84 tons per year (TPY), based on the following equation:

Layer 1:

Maximum operation: 5.5 batches/day * 7 days/wk * 52 wk/yr= 2002 batches/year

4.52 pounds of alcohol/batch + 14.85 lbs naphtha/batch = 19.37 lb VOC/batch emitted

19.37 lb VOC/batch * 2002 batches/yr = 38,778 lbs VOC/yr = 19.4 TPY VOC

Layer 2:

Maximum operation: 3.865 batches/day * 7 days/wk * 52 wk/yr = 1,407 batches/year

35.26 pounds of alcohol/batch + 56.1 lbs naphtha/batch = 91.36 lb VOC/batch emitted

91.36 lb VOC/batch * 1,407 batches/yr = 128,543lbs VOC/yr = 64.3 TPY VOC

Cleaning/Wiping

5 gallons alcohol/week * 6.58 lbs alcohol/gallon = 33 lbs/week

33 lbs/week * 52 weeks/yr = 1716 lbs alcohol used/yr = 0.86 TPY VOC

Note that usage for cleaning and wiping operations are an engineering estimate based on production surveys of cleaning materials utilized. The use of cleaners and wipes is not directly proportional to production, and represents a conservative estimate.

TOTAL ESTIMATED ACTUAL VOC: 19.4 + 64.3 + 0.86 = 84.6 TPY VOC

3.1.2 Potential Annual Emissions

A facility in Indian Country must also calculate potential emissions, or potential to emit (PTE), to determine what air permit program the source may be subject to. Potential VOC emissions from the use of alcohol and naphtha can be calculated assuming that the facility can produce a maximum of 6 batches per day for Layer 1 and run 24 hours per day, 7 days per week and 52 weeks of the year. This results in an estimated PTE for VOC emissions of 92 TPY based on the following calculations:

Layer 1:

Maximum operation: 6 batches/day * 7 days/wk * 52 wk/yr= 2184 batches/year

4.52 pounds of alcohol/batch + 14.85 lbs naphtha/batch = 19.37 lb VOC/batch emitted

19.37 lb VOC/batch * 2184 batches/yr = 42,304 lbs VOC/yr = 21.2 TPY VOC

Layer 2:

Maximum operation: 4.22 batches/day * 7 days/wk * 52 wk/yr = 1536 batches/year

35.26 pounds of alcohol/batch + 56.1 lbs naphtha/batch = 91.36 lb VOC/batch emitted

91.36 lb VOC/batch * 1,536 batches/yr = 140,329lbs VOC/yr = 70.2 TPY VOC

Cleaning/Wiping

5 gallons alcohol/week * 6.58 lbs alcohol/gallon = 33 lbs/week

33 lbs/week * 52 weeks/yr = 1716 lbs alcohol used/yr = 0.86 TPY VOC

TOTAL POTENTIAL ESTIMATED VOC: 21.2 + 70.2 + 0.86 = 92.3 TPY VOC

3.2 HAZARDOUS AIR POLLUTANTS (HAP)

The alcohol solution proposed for utilization contains a small amount (2-6 percent) of methanol, which is a hazardous air pollutant (HAP). However, as the HAP concentration within the solution is minimal, FE's potential HAP emissions for a single HAP (i.e., methanol) do not exceed 10 TPY. As such, FE is considered a true minor source of HAPs as demonstrated below:

Layer 1:

Maximum operation: 6 batches/day * 7 days/wk * 52 wk/yr= 2184 batches/year

4.52 pounds of alcohol/batch * 6% by wt HAP content = 0.25 lb HAP/batch emitted

0.25 lb VOC/batch * 2184 batches/yr = 546 lbs HAP/yr = 0.28 TPY HAP

Layer 2:

Maximum operation: 4.22 batches/day * 7 days/wk * 52 wk/yr = 1536 batches/year

35.26 pounds of alcohol/batch * 6% HAP content = 2.12 lb VOC/batch emitted

2.12 lb HAP/batch * 1,536 batches/yr = 3,256 lb HAP/yr = 1.62 TPY HAP

Cleaning/Wiping

5 gallons alcohol/week * 6.58 lbs alcohol/gallon = 33 lbs/week

33 lbs/week * 6% HAP content * 52 weeks/yr = 103 lbs alcohol used/yr = 0.05 TPY VOC

TOTAL POTENTIAL ESTIMATED HAP: 0.28 + 1.62 + 0.05 = 1.95 TPY PTE

4.0 REQUESTED PERMIT LIMITATIONS

Potential emissions of 92.3 TPY VOC and 1.95 PTY HAP classify FE as a natural minor source, and as a result, a synthetic minor limitation is not necessary and FE is requesting a permit limit of 92.3 TPY VOC. FE understands that proposed permit conditions are not required as part of a minor source permit application; however, FE is presenting the following testing, monitoring, recordkeeping and reporting requirements for the proposed process:

4.1 Proposed Testing Requirements

The proposed operation at FE does not employ a control device for VOC emissions. Quantifying emissions of VOC can be accomplished with accuracy utilizing material balance since VOC estimates are based upon the assumption that all solvents used are emitted. Thus, stack testing for emission quantification purposes is not necessary.

Additionally, as FE is utilizing consistent materials which are 100 percent volatile in the manufacturing process (as opposed to formulated materials containing percentages of volatiles that may fluctuate), testing for VOC content is not necessary. The solvent materials used are pure and the VOC content (and density) do not change on a batch to batch basis. As such, FE believes that maintaining a copy of safety data sheets (SDSs) for materials utilized at the facility provides reliable and accurate data regarding material VOC content.

FE proposes the following requirements:

1. FE shall determine the VOC content, HAP content, and density of all solvents, including those used for cleaning and wiping operations, using manufacturer's formulation data (e.g., safety data sheets).

4.2 Proposed Monitoring, Recordkeeping and Reporting Requirements

As mentioned above, monitoring of emissions from the proposed process can be accomplished by material balance calculations, as VOC emissions are based upon the assumption that solvents utilized are emitted (i.e., there are no add-on controls utilized at the facility). Therefore, material usage records can be relied upon for monitoring solvent usage and resultant emissions.

FE proposes to maintain monthly and 12-month rolling records of material usage and emission calculations to ensure that emission limitations are met. FE is manufacturing a technologically advanced product with precise specifications, and there are currently no plans to change the solvent materials utilized. However, as this technology is still evolving it is important that FE retains a certain amount of operational flexibility to utilize alternate solvents to support future efforts for improved processing or potential material reductions. For this reason, FE is requesting a limit of 92.3 TPY VOC based upon monthly usage and emission records without correlation to limits on total usage (i.e., gallons) or production output.

Although FE does not have potential HAP emissions which exceed major source thresholds, FE understands that as a minor source the facility must also maintain minor source status for HAP emissions. As such, FE is proposing to include conditions to monitor and record HAP content and emissions.

FE proposes the following requirements:

1. The permittee shall maintain a current listing from the manufacturer of the solvent composition and VOC content of each solvent material. The data may consist of SDSs, manufacturer's formulation data, or both. The permittee shall keep records on file for a period of at least five years.

2. The permittee shall keep the following information on a monthly basis:

    a. VOC content of each solvent used or reclaimed;
    b. HAP content of each solvent used or reclaimed;
    c. Quantity of each solvent material used, in gallons or pounds;
    d. VOC mass emission calculations determining the monthly emission rate in pounds per month and tons per month;
    e. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period
    f. HAP mass emission calculations determining the monthly emission rate in pounds per month and tons per month;
    g. HAP mass emission calculations determining the annual emission rate in tons per 12-month rolling time period.

3. The permittee shall complete the required calculations by the 30th day of the calendar month, for the previous calendar month.

5.0 INDIAN COUNTRY REGULATORY REQUIREMENTS

5.1 REGISTRATION/NSR/SYNTHETIC MINOR PERMITS

As indicated in Section 3.0, FE's planned new line and associated operations will not result in potential emissions which exceed the Title V permit threshold for VOC (i.e., <100 TPY) or HAPs (i.e., <10 TPY for total HAPs). Therefore, FE does not require a synthetic minor permit to be considered a minor source and is requesting issuance of a minor NSR permit which will limit the facility to 92.3 TPY VOC.

It should be noted that the facility is located in the Salt River Pima-Maricopa Indian Community which has passed an Ordinance which includes various air quality related provisions (Article V, Section 18-81). Within the Ordinance are requirements related to open burning operations and the management of fugitive dust within the community. However, FE does not anticipate relying on or conducting open burning. Furthermore, the area where the facility is located is primarily paved, and the facility does not plan to stockpile material outside or otherwise conduct operations which would attribute to fugitive dust. Therefore, the FE facility is not subject to the provisions of the Ordinance with regard to fugitive dust management.

5.2 AIR QUALITY REVIEW

As indicated in Section 3.0 of this document, the proposed increase in battery production will result in potential emissions of alcohol and naphtha (petroleum distillates), which are VOCs, into the ambient air via the exhaust stacks of the drying ovens associated with the process. There is no NAAQS for VOCs; however they react with nitrogen oxides (NOX) in the presence of sunlight to form ground level ozone (O3), a criteria pollutant.

The area surrounding Scottsdale is currently classified as a marginal non-attainment area with respect to the 2008 O3 standard of 75 parts per billion based upon the annual fourth-highest daily maximum 8-hour concentration averaged over three years. As of October 1, 2015 the NAAQS for O3 was revised to 70 ppb, while retaining the form and averaging time.

A review of the recent EPA air monitoring in the Phoenix-Mesa-Scottsdale area reveals some monitors showing maximum concentrations of ground level O3 below the standard (lowest maximum of 60 ppb in 2014), while some monitors show exceedances of the standard (highest maximum of 80 ppb in 2014).

Non-attainment area emissions from major sources are regulated by the State's Implementation Plan, and Federal non-attainment NSR regulations neither of which require an analysis of ambient impacts, but rather focus on offsetting emissions with contemporaneous reductions for new major sources or major modifications at existing sources. As demonstrated in Section 3.0 of this document, the FE facility, including the proposed changes will remain a minor source.

The reaction of VOC in the presence of NOX and sunlight is complex. However, there are available studies (e.g., 8-Hour Ozone and PM2.5 Modeling to Support the Georgia SIP) that show that VOC as a precursor results in ground level O3 in the range of a fraction of a ppb per ton of ozone. It is expected that the potential daily VOC emissions form the proposed processes will result in a negligible increase in ground level O3 (i.e., several orders of magnitude less than the standard).

5.3 ANALYSIS OF ENDANGERED SPECIES

The threatened and endangered species list for Maricopa County consist of both animals (birds, fish, and some mammals) as well as certain vegetation. In certain instances, emissions of criteria pollutants can have an impact on endangered species, however, the proposed replacement of the existing equipment with a new line installation at FE is not anticipated to affect identified endangered species in Maricopa County, as discussed below.

5.3.1 Endangered Species List: Animals

Based upon a March 18, 2016 report generated by the U.S. Fish & Wildlife Service Environmental Conservation Online System (ECOS), and an April 28, 2016 report generated from the U.S. Fish & Wildlife Information for Planning and Conservation (IPaC) planning tool, a list of 23 proposed, candidate, threatened or endangered species were identified. Further delineation of the information based on severity rating and specific project locale resulted in a list of eleven endangered animal species were identified, as shown in Table 1 below. The habitats identified consist of coastal areas, brackish and fresh water bodies, as well as desert scrub areas with caves and mines or thick undercover.

TABLE 1: MARICOPA COUNTY ENDANGERED SPECIES LIST - ANIMALS

GROUP	NAME	STATUS	HABITAT
Birds	Yuma clapper rail (Rallus longirostris yumanensis)	Endangered	Fresh water and Brackish marshes
Birds	California least tern (Sterna antillarum browni)	Endangered	Coastal waters and river systems
Birds	Southwestern willow flycatcher (Empidonax traillii extimus)	Endangered	Riparian communities along rivers and streams
Fishes	Colorado pikeminnow (Ptychocheilus lucius)	Endangered	Small lakes and reservoirs
Fishes	Gila topminnow (incl. Yaqui) (Poeciliopsis occidentalis)	Endangered	Small streams, springs and cienegas with vegetated shallows
Fishes	Desert pupfish (Cyprinodon macularius)	Endangered	Shallow springs, small steams and marshes
Fishes	Razorback sucker (Xyrauchen texanus)	Endangered	Riverine and lacustrine areas, backwaters
Fishes	Spikedace (Meda fulgida)	Endangered	Flowing waters with moderate to fast velocity and swift currents
Mammals	Sonoran pronghorn (Antilocapra americana sonoriensis)	Endangered	Alluvial valleys with creosote-bursage and paloverde
Mammals	Ocelot (Leopardus (=Felis) pardalis)	Endangered	Desert scrub communities with thick undercover.
Mammals	Lesser long-nosed bat (Leptonycteris curasoae yerbabuenae)	Endangered	Desert scrub habitat, caves, mines

The FE facility is located in an area which consists of developed light industrial and office space and does not contain suitable habitat for the identified species listed. Furthermore, the proposed new line

installation at FE would not be anticipated to substantially impact air quality in habitats typically occupied by these endangered species, and as a result, no adverse impacts are anticipated to occur to the threatened and endangered species.

5.3.2 Endangered Species List: Vegetation

As stated above, FE recognizes that emissions of criteria pollutants can have an impact on soil, vegetation and animals in certain circumstances. A query of the ECOS system listed four flowering plants which are considered endangered in Maricopa County. Based on the EPA Source Document "A Screening Procedure for the Impacts of Air Pollution on Plans, Soils, and Animals" (EPA 450-2-81-078), foliar injury or damage is generally evaluated based upon exposure to NOx, and specifically NO_2. As construction of the proposed line at FE will not result in increased emissions of NOx, FE has determined that there will be no negative impact on endangered vegetation.

5.4 NATIONAL HISTORIC PRESERVATION ACT REVIEW

FE understands that the National Historic Preservation Act (NHPA) requires a review by the Tribal Historic Preservation Officers to ensure that potential projects are not likely to affect cultural resources.

The proposed installation at FE is not expected to impact cultural resources in the area. The proposed undertaking is to replace existing equipment with new equipment to allow for operational flexibility and increased production within an existing building. However, there will not be any projected increases in noise levels that may affect populations nearby, and the proposed installation will not involve constructing additional buildings or stacks which may affect the esthetics of the surrounding area or block the views of a significant historical building or monument. Additionally, material use at FE does not result in the emission of acids or other chemicals which may be considered to contribute negatively (i.e., erosion) to the preservation of cultural resources.

Additionally, a review of the historic properties in the area can be completed using the National Register of Historic Places, available through the US National Parks Service. FE reviewed a listing from the database which includes historic properties as of June 6, 2014 in the Scottsdale, Maricopa County, Arizona. There are 10 identified sites, the closest which was identified as the George Ellis House (105 Cattle Track, Scottsdale;) which is approximately 2.75 miles from the facility. At such distance there will be significant dilution of the process emissions, and as stated previously, it is not expected that the process emissions would affect historic properties regardless of distance.

6.0 FEDERAL REGULATORY APPLICABILITY

6.1 ATTAINMENT PROVISIONS – PREVENTION OF SIGNIFICANT DETERIORATION (PSD)

Federal New Source Review (NSR) regulations apply to facilities which are considered "major stationary sources". The proposed site is located in an area that is designated as marginal non-attainment area with respect to the National Ambient Air Quality Standards (NAAQS) for Ozone (VOC as precursors). The facility is currently considered a minor source. Any modification at the source with potential emissions that exceed 100 tons per year (TPY) would be considered a major modification, however, as the proposed modification has a PTE of 92.3 TPY the modification is not considered major and the facility remains an existing minor source.

6.2 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT)

A facility which has emissions of hazardous air pollutants (HAP) which exceeds 10 TPY for any single HAP or 25 TPY for any combination of HAPs is considered a major source of HAP and subject to evaluation under the federal MACT program. As demonstrated the FE facility does not meet the definition of a major source of hazardous air pollutants pursuant to the existing MACT program.

7.0 CONCLUSION

Based upon the information in this application, FE is requesting a minor source permit for the battery substrate (sheets) manufacturing operations planned at its Scottsdale, Arizona facility. FE requests that the permit contain enforceable terms and conditions limiting VOC emission to 92.3 TPY on a 12-month rolling basis.

APPENDIX A

Minor Permit Application Form

OMB Control No. Pending

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
FEDERAL MINOR NEW SOURCE REVIEW PROGRAM IN INDIAN COUNTRY
40 CFR 49.151

Application for New Construction

(Form NEW)

Please check all that apply to show how you are using this form:

- ☐ **Proposed Construction of a New Source**
- X **Proposed Construction of New Equipment at an Existing Source**
- ☐ **Proposed Modification of an Existing Source**
- ☐ **Other – Please Explain**

Use of this information request form is voluntary and not yet approved by the Office of Management and Budget. . Use of application forms for this program is currently under Office of Management and Budget review and these information request forms will be replaced/updated after that review is completed.

Please submit information to following entities:

Mr. Gerardo Rios
U.S. EPA, Region IX, Air Division
75 Hawthorn St
San Francisco, CA 94105
(415) 947-3579

The Tribal Environmental Contact for the specific reservation:

If you need assistance in identifying the appropriate Tribal Environmental Contact and address, please contact:

A. GENERAL SOURCE INFORMATION

1. (a) **Company Name** (Who owns this facility?) **FLUIDIC, INC.** (b) **Operator Name** (Is the company that operates this facility different than the company that owns this facility? What is the name of the company?) **FLUIDIC, INC.**	2. **Facility Name** **FLUIDIC, INC.** **8425 N. 90th Street** **Scottsdale, AZ 85258**
3. Type of Operation **Zinc-Air Battery Manufacturing**	4. Portable Source? ☐ Yes X No 5. Temporary Source? ☐ Yes X No
6. NAICS Code **335999; 541712**	7. SIC Code **3699; 8731**
8. Physical Address (Or, home base for portable sources) **8425 N. 90th Street, Scottsdale, AZ 85258**	

9. Reservation* **Salt River Pima-Maricopa Indian Community**	10. County* **Maricopa**	11a. Latitude (decimal format)* **33° 33' 28.07" N**	11b. Longitude (decimal format)* **111° 53' 15.10" W**
12a. Quarter Quarter Section* **NW ¼ of SW ¼**	12b. Section* **31**	12c. Township* **3N**	12d. Range* **5E**

*Provide all proposed locations of operation for portable sources

B. PREVIOUS PERMIT ACTIONS (Provide information in this format for each permit that has been issued to this source. Provide as an attachment if additional space is necessary)

Facility Name on the Permit **FLUIDIC, INC.**
Permit Number (xx-xxx-xxxxx-xxxx.xx) **TBD; application on file**
Date of the Permit Action **Application Submitted February 5, 2016**

Facility Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

Facility Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

Facility Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

Facility Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

C. CONTACT INFORMATION

Company Contact (Who is the primary contact for the company that owns this facility?) **Steve Schamhorst**	Title **CEO**
Mailing Address **8455 N. 90th Street, Suite 4, Scottsdale, AZ 85258**	
Email Address sschamhorst@fluidicenergy.com	
Telephone Number **602-673-3123**	Facsimile Number **480-966-9642**

Operator Contact (Is the company that operates this facility different than the company that owns this facility? Who is the primary contact for the company that operates this facility?) **Bill Fulton**	Title **VP of Operations**
Mailing Address **8455 N. 90th Street, Suite 4, Scottsdale, AZ 85258**	
Email Address bfulton@fluidicenergy.com	
Telephone Number **480-966-0242**	Facsimile Number **480-966-9642**

Permitting Contact (Who is the person primarily responsible for Clean Air Act permitting for the company? We are seeking one main contact for the company. Please do not list consultants.) **Bill Fulton**	Title **VP of Operations**
Mailing Address **See Above**	
Email Address	
Telephone Number	Facsimile Number

Compliance Contact (Is the person responsible for Clean Air Act compliance for this company different than the person responsible for Clean Air Act permitting? Who is the person primarily responsible for Clean Air Act compliance for the company? We are seeking one main contact for the company. Please do not list consultants.) **Bill Fulton**	Title **VP of Operations**
Mailing Address **See Above**	
Email Address	
Telephone Number	Facsimile Number

D. ATTACHMENTS

Include all of the following information (see the attached instructions)

*Please do not send Part 71 Operating Permit Application Forms in lieu of the check list below.

☐ **FORM SYNMIN** - New Source Review Synthetic Minor Limit Request Form, if synthetic minor limits are being requested.

X Narrative description of the proposed production processes. This description should follow the flow of the process flow diagram to be submitted with this application.

X Process flow chart identifying all proposed processing, combustion, handling, storage, and emission control equipment.

X A list and descriptions of all proposed emission units and air pollution-generating activities.

X Type and quantity of fuels, including sulfur content of fuels, proposed to be used on a daily, annual and maximum hourly basis.

X Type and quantity of raw materials used or final product produced proposed to be used on a daily, annual and maximum hourly basis.

X Proposed operating schedule, including number of hours per day, number of days per week and number of weeks per year.

X A list and description of all proposed emission controls, control efficiencies, emission limits, and monitoring for each emission unit and air pollution generating activity.

X Criteria Pollutant Emissions - Estimates of Current Actual Emissions, Current Allowable Emissions, Post-Change Uncontrolled Emissions, and Post-Change Allowable Emissions for the following air pollutants: particulate matter, PM_{10}, $PM_{2.5}$, sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compound (VOC), lead (Pb) and lead compounds, fluorides (gaseous and particulate), sulfuric acid mist (H_2SO_4), hydrogen sulfide (H_2S), total reduced sulfur (TRS) and reduced sulfur compounds, including all calculations for the estimates.

These estimates are to be made for each emission unit, emission generating activity, and the project/source in total. Note, there are no insignificant emission units or activities in this permitting program, only exempted units and activities. Please see the regulation for a list of exempted units and activities.

X Air Quality Review

X ESA (Endangered Species Act)

X NHPA (National Historic Preservation Act)

E. TABLE OF ESTIMATED EMISSIONS

The following tables provide the total emissions in tons/year for all pollutants from the calculations required in Section D of this form, as appropriate for the use specified at the top of the form.

E(i) – Proposed New Source

Pollutant	Potential Emissions (tpy)	Proposed Allowable Emissions (tpy)	
PM			PM - Particulate Matter PM_{10} - Particulate Matter less than 10 microns in size $PM_{2.5}$ - Particulate Matter less than 2.5 microns in size SO_2 - Sulfur Oxides NOx - Nitrogen Oxides CO - Carbon Monoxide VOC - Volatile Organic Compound Pb - Lead and lead compounds Fluorides - Gaseous and particulates H_2SO_4 - Sulfuric Acid Mist H_2S - Hydrogen Sulfide TRS - Total Reduced Sulfur RSC - Reduced Sulfur Compounds
PM_{10}			
$PM_{2.5}$			
SO_2			
NO_x			
CO			
VOC			
Pb			
Fluorides			
H_2SO_4			
H_2S			
TRS			
RSC			

Emissions calculations must include fugitive emissions if the source is one the following listed sources, pursuant to CAA Section 302(j):

(a) Coal cleaning plants (with thermal dryers);
(b) Kraft pulp mills;
(c) Portland cement plants;
(d) Primary zinc smelters;
(e) Iron and steel mills;
(f) Primary aluminum ore reduction plants;
(g) Primary copper smelters;
(h) Municipal incinerators capable of charging more than 250 tons of refuse per day;
(i) Hydrofluoric, sulfuric, or nitric acid plants;
(j) Petroleum refineries;
(k) Lime plants;
(l) Phosphate rock processing plants;
(m) Coke oven batteries;
(n) Sulfur recovery plants;
(o) Carbon black plants (furnace process);
(p) Primary lead smelters;
(q) Fuel conversion plants;
(r) Sintering plants;
(s) Secondary metal production plants;
(t) Chemical process plants
(u) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
(v) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
(w) Taconite ore processing plants;
(x) Glass fiber processing plants;
(y) Charcoal production plants;
(z) Fossil fuel-fired steam electric plants of more that 250 million British thermal units per hour heat input, and
(aa) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.

E(ii) – Proposed New Construction at an Existing Source or Modification of an Existing Source

Pollutant	Current Actual Emissions (tpy)	Current Allowable Emissions (tpy)	Post-Change Potential Emissious (tpy)	Post-Change Allowable Emissions (tpy)
PM				
PM_{10}				
$PM_{2.5}$				
SO_2				
NO_x				
CO				
VOC	16.2	28.9	92.3	92.3
Pb				
Fluorides				
H_2SO_4				
H_2S				
TRS				
RSC				

PM - Particulate Matter
PM_{10} - Particulate Matter less than 10 microns in size
$PM_{2.5}$ - Particulate Matter less than 2.5 microns in size
SO_2 - Sulfur Oxides
NOx - Nitrogen Oxides
CO - Carbon Monoxide
VOC - Volatile Organic Compound
Pb - Lead and lead compounds
Fluorides - Gaseous and particulates
H_2SO_4 - Sulfuric Acid Mist
H_2S - Hydrogen Sulfide
TRS - Total Reduced Sulfur
RSC - Reduced Sulfur Compounds

The public reporting and recordkeeping burden for this collection of information is estimated to average 20 hours per response, unless a modeling analysis is required. If a modeling analysis is required, the public reporting and recordkeeping burden for this collection of information is estimated to average 60 hours per response .Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

APPENDIX B

U.S. Fish & Wildlife IPaC Planning Tool Summary

APPENDIX C

US FISH WILDLIFE IPaC SUMMARY - SCOTTSDALE AZ

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Birds	Bald eagle (Haliaeetus leucocephalus)	lower 48 States	Recovery	Rock Island Ecological Services Field Office	Northern States Bald Eagle Recovery Plan	Final
Birds	Bald eagle (Haliaeetus leucocephalus)	lower 48 States	Recovery	Rock Island Ecological Services Field Office	Chesapeake Bay Bald Eagle Recovery Plan	Final Revision 1
Birds	Bald eagle (Haliaeetus leucocephalus)	lower 48 States	Recovery	Rock Island Ecological Services Field Office	Recovery Plan for the Pacific Bald Eagle	Final
Birds	Bald eagle (Haliaeetus leucocephalus)	lower 48 States	Recovery	Rock Island Ecological Services Field Office	Southeastern States Bald Eagle Recovery Plan	Final Revision 1
Birds	Bald eagle (Haliaeetus leucocephalus)	lower 48 States	Recovery	Rock Island Ecological Services Field Office	Southwestern Bald Eagle Recovery Plan	Final
Birds	Yuma clapper rail (Rallus longirostris yumanensis)	Entire	Endangered	Arizona Ecological Services Field Office	Draft Revised Recovery Plan for the Yuma Clapper Rail	Draft Revision 1
Birds	American peregrine falcon (Falco peregrinus anatum)		Recovery	Ventura Fish And Wildlife Office		
Birds	Brown pelican (Pelecanus occidentalis)	except U.S. Atlantic coast, FL,	Recovery	Ventura Fish And Wildlife Office		
Birds	California least tern (Sterna antillarum browni)		Endangered	Carlsbad Fish And Wildlife Office	Revised California Least Tern Recovery Plan	Final Revision 1
Birds	Yellow-billed Cuckoo (Coccyzus americanus)	Western U.S. DPS	Threatened	Sacramento Fish And Wildlife Office		
Birds	Mexican spotted owl (Strix occidentalis lucida)	Entire	Threatened	Arizona Ecological Services Field Office	Final Recovery Plan for the Mexican Spotted Owl, First Revision (Strix occidentalis lucida)	Final Revision 1
Birds	Southwestern willow flycatcher (Empidonax traillii extimus)	Entire	Endangered	Arizona Ecological Services Field Office	Final Recovery Plan for the Southwestern Willow Flycatcher	Final
Birds	Sprague's pipit (Anthus spragueii)		Candidate	Assistant Regional Director-ecological		
Fishes	Colorado pikeminnow (=squawfish) (Ptychocheilus lucius)	Entire, except EXPN	Endangered	Upper Colorado River Endangered Fish Recovery Program	Colorado Pikeminnow (Ptychocheilus lucius) Recovery Plan (Amendment and Supplement for Recovery Goals)	Final Revision 2
Fishes	Colorado pikeminnow (=squawfish) (Ptychocheilus lucius)	Salt and Verde R. drainages,	Experimental Population, Non-Essential	Office Of The Regional Director		

APPENDIX C

US FISH WILDLIFE IPaC SUMMARY - SCOTTSDALE AZ

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Fishes	Gila topminnow (incl. Yaqui) (Poeciliopsis occidentalis)	Entire	Endangered	Arizona Ecological Services Field Office	Gila/Yaqui Topminnow (2 ssp.)	Draft Revision 1
Fishes	Gila topminnow (incl. Yaqui) (Poeciliopsis occidentalis)	Entire	Endangered	Arizona Ecological Services Field Office	Draft Revised Recovery Plan for the Gila Topminnow	Draft Revision 1
Fishes	Woundfin (Plagopterus argentissimus)	Gila R. drainage, AZ, NM	Experimental Population, Non-Essential	Office Of The Regional Director		
Fishes	Roundtail chub (Gila robusta)	Lower Colorado	Proposed Threatened	Arizona Ecological Services Field Office		
Fishes	Desert pupfish (Cyprinodon macularius)	Entire	Endangered	Arizona Ecological Services Field Office	Desert Pupfish (Cyprinodon macularius) Recovery Plan	Final
Fishes	Razorback sucker (Xyrauchen texanus)	Entire	Endangered	Upper Colorado River Endangered Fish Recovery Program	Razorback Sucker - Recovery Goals	Final Revision 1
Fishes	Spikedace (Meda fulgida)	Entire	Endangered	Arizona Ecological Services Field Office	Spikedace Recovery Plan	Final
Flowering Plants	Acuna Cactus (Echinomastus erectocentrus var. acunensis)		Endangered	Arizona Ecological Services Field Office		
Flowering Plants	(Echinocactus horizonthalonius var. nicholii)		Endangered	Arizona Ecological Services Field Office	Nichol's Turk's-head Cactus	Final
Flowering Plants	Arizona hedgehog cactus (Echinocereus triglochidiatus var.		Endangered	Arizona Ecological Services Field Office	Arizona Hedgehog Cactus Agency Review Draft, 1984	Draft
Flowering Plants	Arizona Cliffrose (Purshia (=Cowania) subintegra)		Endangered	Arizona Ecological Services Field Office	Arizona Cliffrose (Purshia subintegra) Recovery Plan	Final
Mammals	Sonoran pronghorn (Antilocapra americana sonoriensis)	Entire	Endangered	Cabeza Prieta National Wildlife Refuge		
Mammals	Sonoran pronghorn (Antilocapra americana sonoriensis)	Entire	Endangered	Cabeza Prieta National Wildlife Refuge	Draft Recovery Plan for the Sonoran Pronghorn Antilocapra americana sonoriensis), Second Revision	Draft
Mammals	Ocelot (Leopardus (=Felis) pardalis)	wherever found	Endangered	Laguna Atascosa National Wildlife Refuge	Ocelot (Leopardus pardalis) Recovery Plan, Draft First Revision	Draft Revision 1
Mammals	Lesser long-nosed bat (Leptonycteris curasoae	Entire	Endangered	Arizona Ecological Services Field Office	Lesser Long-nosed Bat	Final

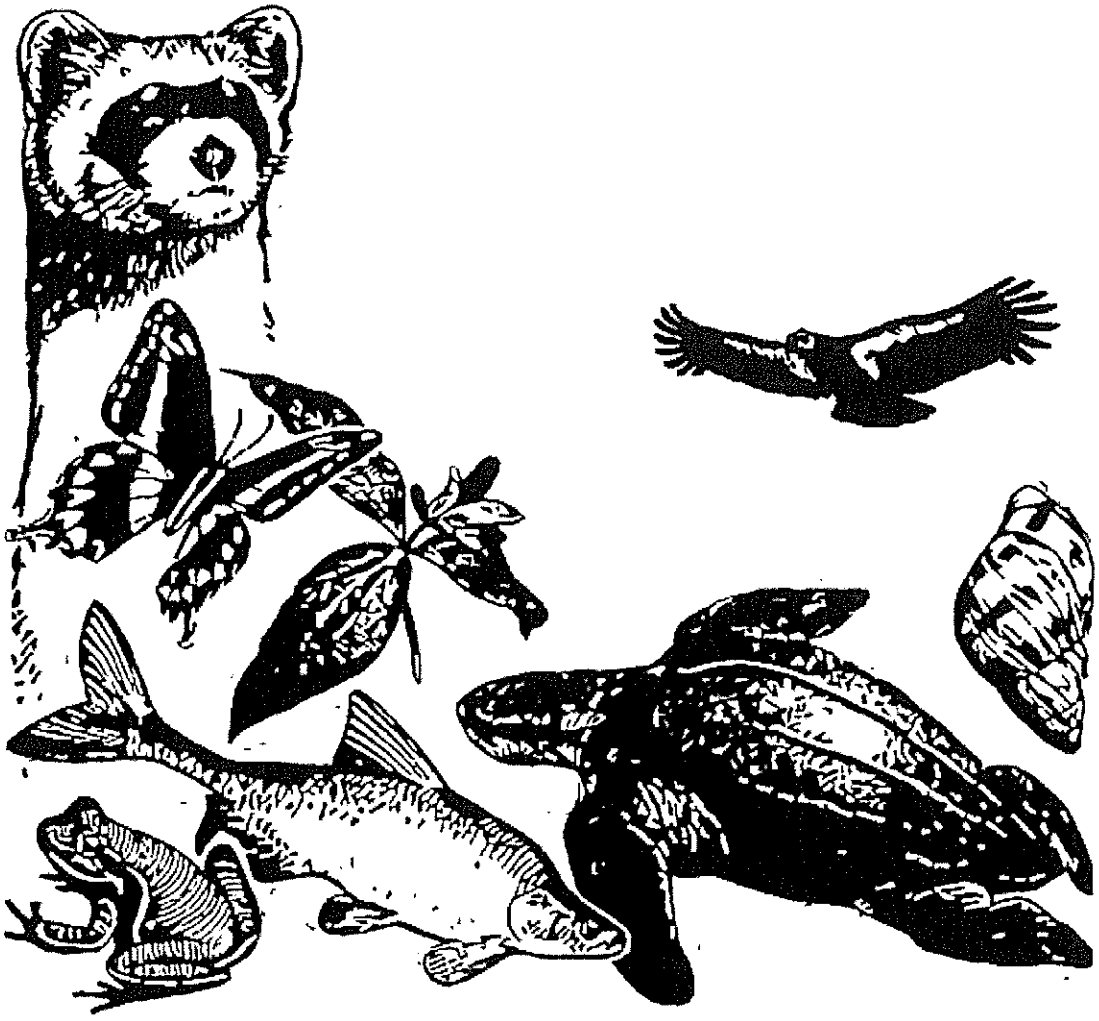
U.S. Fish & Wildlife Service

FLUIDIC

IPaC Trust Resources Report

Generated August 05, 2016 01:28 PM MDT, IPaC v3.0.8

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



IPaC - Information for Planning and Conservation (https://ecos.fws.gov/ipac/): A project planning tool to help streamline the U.S. Fish & Wildlife Service environmental review process.

Table of Contents

U.S. Fish & Wildlife Service

IPaC Trust Resources Report

NAME

FLUIDIC

LOCATION

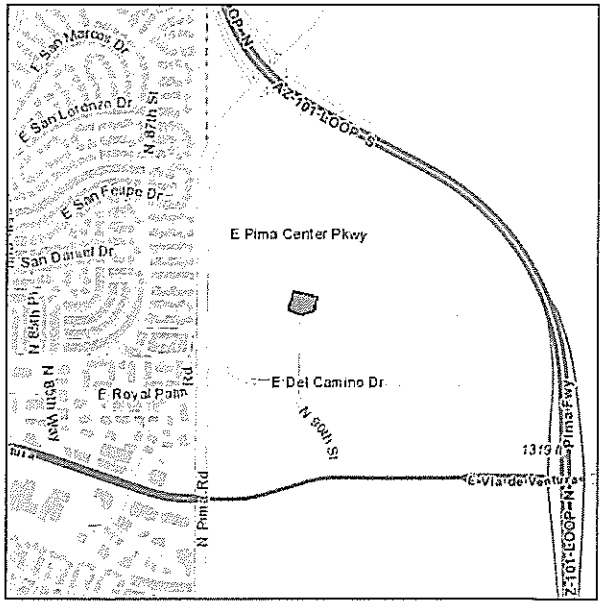
Maricopa County, Arizona

DESCRIPTION

Fluidic proposed line

IPAC LINK

https://ecos.fws.gov/ipac/project/EFTPF-HBZA5-EQZII-NSSQV-BQU254



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

Arizona Ecological Services Field Office
2321 West Royal Palm Road, Suite 103
Phoenix, AZ 85021-4915
(602) 242-0210

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the Endangered Species Program of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Birds

California Least Tern Sterna antillarum browni — Endangered

CRITICAL HABITAT
No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B03X

Yellow-billed Cuckoo Coccyzus americanus — Threatened

CRITICAL HABITAT
There is **proposed** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06R

Yuma Clapper Rail Rallus longirostris yumanensis — Endangered

CRITICAL HABITAT
No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B00P

Fishes

Desert Pupfish Cyprinodon macularius — Endangered

CRITICAL HABITAT
There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E044

Roundtail Chub Gila robusta — Proposed Threatened

CRITICAL HABITAT
No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E02Z

Mammals

Lesser Long-nosed Bat Leptonycteris curasoae yerbabuenae — Endangered

CRITICAL HABITAT
No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=A0AD

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

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1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
  http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Conservation measures for birds
  http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data
  http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The following species of migratory birds could potentially be affected by activities in this location:

Bald Eagle Haliaeetus leucocephalus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B008

Bell's Vireo Vireo bellii — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JX

Bendire's Thrasher Toxostoma bendirei — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0IF

Black-chinned Sparrow Spizella atrogularis — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0IR

Brewer's Sparrow Spizella breweri — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HA

Burrowing Owl Athene cunicularia — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0NC

Chestnut-collared Longspur Calcarius ornatus — Bird of conservation concern
Season: Wintering

Common Black-hawk Buteogallus anthracinus — Bird of conservation concern
Season: Breeding

Costa's Hummingbird Calypte costae — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JE

Elf Owl Micrathene whitneyi — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0GV

Gila Woodpecker Melanerpes uropygialis — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0EH

Gilded Flicker Colaptes chrysoides — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0EG

Golden Eagle Aquila chrysaetos — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0DV

Gray Vireo Vireo vicinior — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0G5

Lawrence's Goldfinch Carduelis lawrencei — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0J8

Le Conte's Thrasher toxostoma lecontei — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0GE

Loggerhead Shrike Lanius ludovicianus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FY

Long-billed Curlew Numenius americanus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06S

Lucy's Warbler Vermivora luciae — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0DL

Peregrine Falcon Falco peregrinus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU

Pinyon Jay Gymnorhinus cyanocephalus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0I0

Prairie Falcon Falco mexicanus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0ER

Red-faced Warbler Cardellina rubrifrons — Bird of conservation concern
Season: Breeding

Rufous-crowned Sparrow Aimophila ruficeps — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MX

Short-eared Owl Asio flammeus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD

Sonoran Yellow Warbler Dendroica petechia ssp. sonorana — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F7

Swainson's Hawk Buteo swainsoni — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B070

Western Grebe aechmophorus occidentalis — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0EA

Willow Flycatcher Empidonax traillii — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

This location overlaps all or part of the following wetlands:

Riverine

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website: http://107.20.228.18/decoders/wetlands.aspx