



MEMORANDUM

TO: Mayor and Council Members

FROM: Jacqueline Yaft, Chief Executive Officer
Aviation Department

DATE: March 17, 2022

SUBJECT: Jet-A Fuel Storage Facility Briefing – City Council Resolution No. 20211209-061

The purpose of this memo is to respond to Council Resolution No. 20211209-061 which directed staff to provide a Council briefing memo regarding the site for the new Jet-A fuel storage facility. This memo includes information related to the governmental compliance process, environmental impact review process for the project, reporting on the comparison of any measured air pollutants of the existing AUS fuel storage facility with previous years' measurements, and information on any potential effects of specific changes in air quality based on the new Jet-A fuel storage facility.

Background

The current fuel storage facility (“Existing Facility”) at AUS has two bulk storage tanks with fuel storage capacity of a 2-3-day supply of Jet A-Fuel. The current and forecasted increases in air service at AUS has resulted in an immediate need for more fuel capacity. To address the need for additional fueling capacity at AUS, the design and permitting for a second fuel storage facility project with 2 additional bulk storage tanks was initiated (“New Facility”).

The location for the New Facility is on airport property on the northbound side of US 183. The location was carefully considered using a site selection matrix that evaluated:

- Land Development Code compatibility
- Operational requirements and transfer line feasibility
- Future airport development compatibility
- Existing airport development and operations
- Environmental safety
- Airspace and Federal Aviation Administration facilities

The Department of Aviation acknowledges that any further analysis will lead to no alternative site meeting the screening criteria. The Department of Aviation is committed to working with the community to resolve concerns regarding the selected site since it is the only site that meets the screening criteria.

Governmental Compliance Process and Environmental Impact Review Process

The New Facility project underwent an Environmental Assessment (EA) to fulfill the National Environmental Policy Act (NEPA) Documentation requirement. In accordance with Federal Aviation Administration (FAA) policies and procedures for implementing NEPA, the Environmental Assessment (EA) for the New Facility project included an

evaluation of the following key topics: (1) air quality; (2) biological resources; (3) land use compatibility; (4) noise; (5) surface transportation; (6) water resources; (7) cultural resources; (8) environmental justice; (9) visual resources; and (10) hazardous materials. The EA was submitted to the FAA and a [Finding of No Significant Impact \(FONSI\)](#) was received in April 2020 denoting FFA approval for the project.

Additionally, the Environmental Protection Agency (EPA) requires a Spill Prevention Control and Countermeasures (SPCC) Plan and a Facility Response Plan that guide spill mitigation efforts. Such plans exist at the Existing Facility and as required, an SPCC Plan and a Facility Response Plan will be prepared by the design engineer prior to the opening of the New Facility.

In the design and engineering of the New Facility, attention was also given to the separation and setback requirements for fire and explosion protection as set forth in the National Fire Protection Association (NFPA) guidelines - NFPA 30 Chapter 22 - regarding above ground storage tank design.

Pursuant to the [Texas Commission on Environmental Quality \(TCEQ\) Chapter 106 Permit By Rule \(PBR\) §106.472](#) – the New Facility must not exceed 25 tons of volatile organic compounds (VOCs) permitted emissions each year. According to Burns & McDonald (the design engineer for the New Facility), the New Facility is estimated to emit 3.6 tons of VOCs annually -- 14.4% of the allowed 25 tons.

The Department of Aviation hired a third-party consulting firm, AECOM, to validate the methodology used to calculate the original projections of VOCs (as determined by Burns & McDonald) for the two fuel storage tanks at the New Facility. This projected emission level is well below the permitted TECQ threshold. Since the projected emissions for the New Facility meets the requirements for a Permit by Rule, a standalone TCEQ permit for air quality was not required. The documentation for the Air Unregistered Permit by Rule Authorization was submitted to the City of Austin in September 2020. Once constructed, the Department of Aviation is committed to annual audits to ensure the New Facility is operating as designed and does not exceed TCEQ’s emissions threshold.

Other State of Texas requirements for the New Facility project include the Texas Pollutant Discharge Elimination System (TPDES) requirements. TPDES requirements will guide construction and post-construction stormwater management for the New Facility Project. It should be noted that AUS is not within the continuing recharge, transition, or contributing zone of the Edwards Aquifer.

Furthermore, the City of Austin site plan application for the New Facility met the City Code requirements for administrative approval and was approved on November 22, 2021. The site plan application was reviewed by various City departmental staff across multiple disciplinary reviews, such as Fire Safety and Environmental. In accordance with City Code, a notice of filing of site plan application for administrative approval was mailed to qualifying property owners within 500 feet of the site for the New Facility project as well as to neighborhood associations, neighborhood contact teams, and homeowners associations, which are within the same area.

Measured Air Pollutants

In addition to validating the VOC emissions methodology for the New Facility, AECOM evaluated the air quality models applicable to Jet-A Fuel handling at the Existing Facility to estimate the current potential emissions associated with tank storage (including the equipment supporting the tanks) and potential emissions at this location associated with the loading of fuel into aircraft fuel loading trucks. Based on their findings, the Existing Facility is calculated to emit a total of 4.1 VOCs annually. Of this total, 1.9 VOCs are associated with loading of fuel into aircraft fuel loading trucks. Loading of fuel into aircraft fuel loading trucks will not occur at the New Facility.

VOC emission levels from Jet-A Fuel storage tanks remain low because the fuel does not create a high volume of vapors. For Jet-A fuel to create vapors, 100 plus degrees must be regularly sustained within the storage tanks. The tanks are designed to deflect heat and stay below 100 degrees.

To further a commitment to environmental protection, the Department of Aviation is working to define and launch the Jet-A Fuel Storage Facility Air and Stormwater Monitoring Program. This new program will ensure that operations at the Existing Facility and the New Facility are environmentally compliant. The aim of the Jet-A Fuel Storage Air and Stormwater Monitoring Program is to conduct regular site inspections for environmental safety and communicate these findings to the community.

Fuel Facility Safety Measures

Federal Aviation Administration and National Fire Protection Association regulations require airports to design and establish airport safety standards and inspection programs for all aviation fuel functions.

The New Facility will have fire prevention and response safety features, including:

- Bonded tanks to ensure static electricity doesn't spark a fire
- Automated foam fire suppression system
- Tanks that are designed to deflect heat
- Monitoring systems with sensor and safety controls
- Lightning protection rods & FAA airport lighting protocols

AUS has an on-airport fire station, the Aircraft Rescue and Firefighting (ARFF) station, which will inspect the fuel facility every 4 months. ARFF trains to respond quickly and effectively to airport emergencies.

The New Facility will have environmental safety features that prevent and respond to leaks, including:

- A corrosion detection system that alerts operators long before a leak occurs
- High and low-level fuel sensors
- Auto shut-off valves
- Lined leak containment structures

The facility has secondary containment and controls to prevent any leaks from entering ground soil and will have multiple permits, safety plans and inspections. Site staff employed by the world's largest independent fuel service provider will monitor the facility 24/7.

Differences between Jet-A-Fuel Storage Tanks and Petroleum Storage Tanks

The Department of Aviation recognizes the historic injustice endured by East Austinites who lived near the East Austin petroleum storage tanks and is committed to working with community members, the facility owners and operators, regulatory agencies and experts to ensure the Jet-A Fuel Storage Facility is a safe operation.

The East Austin petroleum storage tanks were on a 52-acre site, did not have adequate safety designs and inspections, and were owned and operated by several different oil and gas private companies. The only physical boundary between many homes and the gasoline tank farm was a simple chain link fence. The Jet-A fuel storage facility is a modern, regulated and inspected operation to achieve the highest level of safety, security and reliability:

- The facility is owned and operated by AUS airlines and their fueling service contractor.
- The facility is located on City of Austin property and will be routinely inspected by the Austin Fire Department, the Department of Aviation and the Department of Watershed Protection.
- The facility will be separated from the closest homes and businesses by four highway lanes, a grass

median, the airport perimeter fence, and a decorative screen that will minimize the visual impacts of the facility.

- The tanks will store Jet-A fuel, not gasoline, and Jet-A fuel is less volatile.
 - Emission levels from the tanks are low for various reasons, including because the tanks are designed to deflect heat and stay cool, and have temperature probes in the tanks for continuous monitoring
 - Jet-A fuel is a low vapor fuel and is difficult to combust, unlike gasoline, which is a higher vapor flammable fuel.
- The environmental controls include secondary containment systems, leak detection, spill response, sensors, and controls to achieve the highest level of safety, security and reliability.

The Department of Aviation is committed to providing any further information on the safety of the new facility and the existing facility. Should you have any questions, feel free to contact me at 512-530-5070.

Cc: Spencer Cronk, City Manager
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