AMMONIA & FERTILIZER
JOINT INDUSTRY PROGRAM

BakerRisk and 16 (sixteen) ammonia-fertilizer production companies have participated in conducting an Ammonia & Fertilizer Joint Industry Project (A&F JIP) to improve the reliability and safety of production facilities. The A&F JIP, initiated in 2020, examines how to identify, avoid, and mitigate damage mechanisms that affect process units and major equipment specific to ammonia, fertilizer, and related industries. The A&F JIP welcomes new members for the program, who also have the right to purchase previous A&F JIP reports.

2020
YEAR FOUNDED

9+
STUDIES CONDUCTED

16
COMPANIES PARTICIPATED

PROPOSED 2024 STUDIES

- **Revised Study No. 1 -** Update of the Ammonia Process and Damage Mechanisms and Mitigation Options
- **Webinar/Roundtable -** Mitigation Practices for Damage Mechanisms in the Synloop and Ammonia Converters
- **Study No. 8 -** Risk Evaluation, Damage Mechanisms, and Hazards for the Synloop and Ammonia Converters
- **Study No. 9 -** Risk Evaluation, Damage Mechanisms, and Hazards for an Ammonia Storage Tanks
- **Webinar/Roundtable -** The Use of Leak Detection on Ammonia Converters
- **Webinar/Roundtable -** Mitigation Practices for Damage Mechanisms in the Synloop and Ammonia Converters
- **Webinar/Roundtable -** Ammonia Storage Tank Design, Prevention of Ammonia Stress Corrosion Cracking, and Inspection Practices
- **Webinar/Roundtable -** Best Practices for Mitigation of Loading and Unloading Risks of Ammonia

PAST A&F JIP STUDIES

- **Study No. 1:** Damage Mechanisms and Mitigation Options - The Ammonia Process
- **Study No. 2:** Damage Mechanisms and Mitigation Options - Ammonia Storage & Loading Facilities
- **Study No. 3:** Damage Mechanisms and Mitigation Options - The Urea Process
- **Study No. 4:** Nitric Acid Plant Damage Mechanisms and Mitigation Options
- **Study No. 5:** Selected Ammonium Nitrate Damage Mechanisms and Mitigation Options
- **Study No. 6:** Latest Development of HTHA Inspection Methods
- **Study No. 7:** Cooling Water, Boiler Feed Water and Steam Systems Damage Mechanisms and Mitigation Options

TESTIMONIALS

> The A&F JIP has reached an excellent result, especially with regards to the way we created awareness in the industry and triggered the discussions about the importance of understanding damage mechanisms."

> With the A&F JIP, much has been gained for the staff to begin the fixed equipment Risk Based Inspection Program."

> The A&F JIP Round Table discussions highlighted that we have an opportunity to update our hydrogen embrittlement strategy, and we are currently progressing with this via contacts made within the JIP."

PROGRAM ACTIVITIES AND RESEARCH

Scheduled meetings during the year to discuss the progress for each study, with technical input and questions from the members.

Roundtable discussions with topics selected by the members to facilitate the sharing of information and lessons learned.

Direct communication between members and with BakerRisk to discuss specific damage mechanism issues, problems, mitigation efforts, and proposed solutions.

Articles in industry publications that highlight the JIP members, scope of work, and benefits of the program.

ABOUT BAKERRISK?

Baker Engineering and Risk Consultants, Inc. (BakerRisk®) is one of the world's leading explosion analysis, structural design, and risk management companies. BakerRisk provides comprehensive consulting, engineering, laboratory, and full-scale facility testing services to government agencies and private companies who are involved with hazardous operations or materials.

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FOR INFORMATION ABOUT JOINING THE A&F JIP OR TO PURCHASE THE REPORTS PLEASE CONTACT:

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