

## Chris LaRocque

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**From:** Michael Paige <mpaige@bfccs.org>  
**Sent:** Thursday, September 26, 2024 12:32 PM  
**To:** Chris LaRocque  
**Subject:** RE: 1132191 - Sigma-Aldrich Inc @ 3050 Spruce Street, St Louis, MO

You don't often get email from mpaige@bfccs.org. [Learn why this is important](#)

Good afternoon,

Can you please call me cell # (630) 940-6747 to discuss this project.

Thank you

Michael Paige  
Inspector

B & F Construction Code Services, Inc.  
2420 Vantage Drive. Elgin IL, 60124  
847-428-7010 Main | 847-428-3151 Fax | [ConstructionCodes.com](http://ConstructionCodes.com)

**From:** Chris LaRocque <clarocque@villageofmanteno.com>  
**Sent:** Monday, September 23, 2024 9:51 AM  
**To:** Plan Review <planreview@bfccs.org>  
**Subject:** FW: 1132191 - Sigma-Aldrich Inc @ 3050 Spruce Street, St Louis, MO

To: Michael Paige

Per the review letter dated September 11, 2024, for Project #1132191 – See below for the explanation which was previously provided verbally by phone. Please provide the village an updated review letter if this information is adequate for compliance.

Chris LaRocque  
Administrator

*Village of*  
  
**Manteno**  
98 East Third Street  
Manteno, IL 60950  
815-929-4842

**From:** Russell Sayre <r.sayre@gotion.com>  
**Sent:** Monday, September 23, 2024 9:06 AM  
**To:** Chris LaRocque <clarocque@villageofmanteno.com>

**Cc:** Branden Brickles <[b.brickles@gotion.com](mailto:b.brickles@gotion.com)>

**Subject:** RE: 1132191 - Sigma-Aldrich Inc @ 3050 Spruce Street, St Louis, MO

Yes,

There is no storage of Lithium Hexafluorophosphate stored in the building or on the property as part of phase 1. This will become relevant in phase 2 as we begin manufacturing.

Phase 1 is only assembly, the batteries are already manufactured, tested & sealed prior to reaching our facility. The Hexafluorophosphate is an electrolyte that evaporates out of the batteries during the manufacturing process, but the chemical is not stored or kept on site as part of PH1.

We will have none stored or present on site for this phase.

Please let me know if I need to speak to anyone directly, I never received this letter and just answered these questions over the phone with a gentleman that called me from B&F. He did not ask me to issue a letter, but I'm happy to throw this email on a word doc and send to you if you need it.

Thanks,  
Cole Sayre  
502-229-6489



**From:** Chris LaRocque <[clarocque@villageofmanteno.com](mailto:clarocque@villageofmanteno.com)>

**Sent:** Monday, September 23, 2024 9:50 AM

**To:** Russell Sayre <[r.sayre@gotion.com](mailto:r.sayre@gotion.com)>

**Subject:** FW: 1132191 - Sigma-Aldrich Inc @ 3050 Spruce Street, St Louis, MO

**CAUTION:** This email originated from outside of Gotion. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Did you respond to B&F regarding the quantities question?

Chris LaRocque  
Administrator

*Village of*  
  
**Manteno**  
98 East Third Street  
Manteno, IL 60950  
815-929-4842

**From:** Plan Review <[planreview@bfccs.org](mailto:planreview@bfccs.org)>

**Sent:** Wednesday, September 11, 2024 1:25 PM

**To:** Chris LaRocque <[clarocque@villageofmanteno.com](mailto:clarocque@villageofmanteno.com)>

**Cc:** [r.sayre@gotion.com](mailto:r.sayre@gotion.com)

**Subject:** 1132191 - Sigma-Aldrich Inc @ 3050 Spruce Street, St Louis, MO

Good Day,

We have completed the plan review for Sigma-Aldrich Inc located at 3050 Spruce Street, St Louis, MO.

The Project number 1132191.

Thank you,

Jean Michels

Administrative Assistant

B & F Construction Code Services, Inc.

2420 Vantage Drive. Elgin IL, 60124

847-428-7010 Main | 847-428-3151 Fax | [constructioncodes.com](http://constructioncodes.com)

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## Chris LaRocque

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**From:** Plan Review <planreview@bfccs.org>  
**Sent:** Thursday, September 26, 2024 2:46 PM  
**To:** Chris LaRocque  
**Cc:** r.sayre@gotion.com  
**Subject:** 1132191 - Sigma-Aldrich Inc. @ 3050 Spruce Street, St Louis, MO  
**Attachments:** 1132191 9-26-2024.pdf

Good Day,

We have completed the plan review for Sigma-Aldrich Inc. located at 3050 Spruce Street, St Louis, MO.

The Project number 1132191.

Thank you,

Lisa Allamian  
Administrative Assistant

B & F Construction Code Services, Inc.  
2420 Vantage Drive. Elgin IL, 60124  
847-428-7010 Main | 847-428-3151 Fax | ConstructionCodes.com  
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2420 Vantage Drive  
ELGIN, IL 60124  
CORRESPONDENCE:  
P.O. BOX 5178  
ELGIN, IL 60121-5178

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**Building & Fire Protection Plan Review**  
**Training • Inspections • Code Consulting**

Phone (847) 428-7010  
Fax (847) 428-3151  
[constructioncodes.com](http://constructioncodes.com)

September 26, 2024

To Whom It May Concern  
Village of Manteno  
98 East Third Street  
Manteno, IL 60950

RE: **Sigma-Aldrich Inc**  
**3050 Spruce Street, St Louis, MO**  
**Project No. 1132191**

To Whom It May Concern,

The plans and/or documents submitted were reviewed for compliance based on the codes and ordinances adopted by your municipality as listed on the previous plan review(s).

These plans **COMPLY** with the applicable code(s) for the following discipline(s):

**Code Study Review No. 2\***

Disciplines noted with an asterisk (\*) comply with the comments on the following page(s).

This review is limited to a review of the information submitted and no responsibility is implied or accepted for results of construction. Failure to identify a code violation does not relieve the owner of the obligation to compliance. Final construction and installations must be in conformance with the code.

Only authority having jurisdiction may grant approval for permit issuance.

Sincerely,



Peter Tutanés  
Technical Advisor & Building Plans Examiner

Report Processed By: pt

CC: [r.sayre@gotion.com](mailto:r.sayre@gotion.com)

Service With Integrity

Member  
ICC NFPA IFIA



September 26, 2024

## CODE STUDY REVIEW NO. 2

PROJECT NAME: Sigma-Aldrich Inc.  
PROJECT NUMBER: 1132191  
LOCATION: 3050 Spruce Street, St Louis, MO  
CODE REFERENCED: 2024 International Fire Code

These documents **COMPLY** with the above applicable code with the following comments.

This review is based on the documents received on September 23, 2024.

Note: This review is based on three (3) chemicals for the Gotion New Energy facility as supplied to the Village of Manteno. This review is limited to the health or toxicity requirements of said chemicals.

Note: With the removal of Lithium Hexafluorophosphate at this time, the remaining two (2) chemicals (Lithium Iron Phosphate and Carboxymethyl cellulose Sodium Salt) would meet the minimum compliance for the Village of Manteno, Illinois. However Sigma-Aldrich Inc. shall provide information how they intend to manage Lithium Hexafluorophosphate in future phases of operation, provide expected dates on adding this chemical to the facility, safety plan for handling the product in case of emergency.

### Lithium Hexafluorophosphate

Per the manufacturer's Safety Data Sheet (SDS) Lithium Hexafluorophosphate (CAS #21324-40-3) – Electrolyte Sample Series A11 is classified as a dangerous good and has the following hazard classifications:

- Acute toxicity, oral: Toxic if swallowed.
- Acute toxicity, dermal: Toxic in contact with skin.
- Skin corrosion/irritation: Causes severe skin burns and eye damage.
- Serious eye damage/eye irritation: Causes serious eye damage.
- Specific target organ toxicity, repeated exposure: Causes damage to organs through prolonged or repeated exposure.
- May be corrosive to metals: May be corrosive to metals.

Per the manufacturer's Safety Data Sheet (SDS) Lithium Hexafluorophosphate (CAS #21324-40-3) has several health requirements, including:

- Hazard statements: H311 (toxic to skin), H302 (harmful if swallowed), H314 (causes severe skin burns and eye damage), and H290 (may be corrosive to metals).
- Precautionary statements: P260 (do not breathe dusts or mists), P270 (do not eat, drink, or smoke when using this product), P234 (keep only in original container), P264 (wash skin thoroughly after handling), and P280 (wear protective gloves, protective clothing, eye protection, and face protection).
- Target organs: Bone and teeth.
- Personal protective equipment: Dust mask type N95 (US), eye shields, and gloves.
- Lethal Dose 50% (LD50) values ranging from about 400 – 1000 mg/kg of body weight (bw) via oral ingestion, and > 4000 mg/kg body weight (bw) via dermal (skin) absorption.

**B & F CONSTRUCTION CODE SERVICES, INC.**

2420 Vantage Drive - Elgin, IL 60124  
Phone: 847/428- 7010 - Fax: 847/428-3151

**Sigma-Aldrich Inc.**  
**Project Number: 1132191**  
**Code Study Review No. 2**  
**September 26, 2024**

This chemical (Lithium Hexafluorophosphate) would be classified by the International Fire Code (IFC) 2024 as Toxic and shall need to be treated accordingly by operations staff or by first responders.

As Lithium Hexafluorophosphate is considered to be Toxic per the IFC then the requirements of Chapter 50 Hazardous Materials General Provisions and Chapter 60 Highly Toxic and Toxic Materials.

The design team and/or facility operator shall respond to the following comments in future phases:

1. Clarify the total amount of Lithium Hexafluorophosphate that will be stored within the facility and in a control area. Please note that Table 5003.1.1(2) allows for one thousand pounds (1,000 lb) per control area (including the known sprinkler credit), without modifiers (increases per the footnote) for storage occupancies or approved storage vessels. If the storage occupancy or storage vessel modifiers are used demonstrate how compliance will be achieved. IFC 5003.1.1(2)
2. If the storage exceeds the amounts noted above, the storage requirements of IFC 5004, 5005, 6003 shall apply.

For questions concerning the items in this review contact Michael Paige.

## Chris LaRocque

---

**From:** Chris LaRocque  
**Sent:** Tuesday, October 1, 2024 8:20 AM  
**To:** 'Plan Review'  
**Subject:** RE: 1132427 - Gotion Chemical Review @ 333 South Spruce Street, Manteno, IL

Checking on this review, which was anticipated to be completed by 9/30.

Also, can you add to this report and report #1132191, that the compliance with the codes covers both the 2015 and the 2024 versions? Thanks.

*Chris LaRocque*

Administrator

*Village of*  
**Manteno**  
98 East Third Street  
Manteno, IL 60950  
815-929-4842

**From:** Plan Review <planreview@bfccs.org>  
**Sent:** Monday, September 16, 2024 1:52 PM  
**To:** Chris LaRocque <clarocque@villageofmanteno.com>  
**Subject:** 1132427 - Gotion Chemical Review @ 333 South Spruce Street, Manteno, IL

Good Day,

We have received the following information for Plan Review for the Gotion Chemical Review located at 333 South Spruce Street, Manteno, IL.

The Project number assigned for this submittal is 1132427.

The following documents were received for the review:  
Digital Submittal.

As requested, we will perform the following reviews:  
Code Study (1),

This project is scheduled to be completed on or before 9/30/2024.

Colleen Barton  
Administrative Assistant



B & F Construction Code Services, Inc.

2420 Vantage Dr. Elgin, IL 60124

847-428-7010 Main | 847-428-3151 Fax | ConstructionCodes.com <<https://www.constructioncodes.com/>>

\*\*\*B&F will be closed on Monday Sept. 2nd in observance of Labor Day\*\*\*

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To ensure timely receipt, please send inspection requests by 3:00pm the day prior to service\*\*

## Chris LaRocque

---

**From:** Plan Review <planreview@bfccs.org>  
**Sent:** Wednesday, October 2, 2024 1:23 PM  
**To:** Chris LaRocque  
**Cc:** r.sayre@gotion.com  
**Subject:** 1132191 - Sigma-Aldrich Inc. @ 3050 Spruce Street, St Louis, MO  
**Attachments:** 1132191 10-2-2024.pdf

Good Day,

We have completed the plan review for Sigma-Aldrich Inc. located at 3050 Spruce Street, St Louis, MO.

The Project number 1132191.

Thank you,  
Jean Michels  
Administrative Assistant  
B & F Construction Code Services, Inc.  
2420 Vantage Drive. Elgin IL, 60124  
847-428-7010 Main | 847-428-3151 Fax | [constructioncodes.com](http://constructioncodes.com)

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October 2, 2024

To Whom It May Concern  
Village of Manteno  
98 East Third Street  
Manteno, IL 6095

RE: **Sigma-Aldrich Inc**  
**3050 Spruce Street, St Louis, MO**  
**Project No. 1132191**

To Whom It May Concern,

The plans and/or documents submitted were reviewed for compliance based on the codes and ordinances adopted by your municipality as listed on the previous plan review(s).

These plans **COMPLY** with the applicable code(s) for the following discipline(s):

**Code Study Review No. 2A\***

Disciplines noted with an asterisk (\*) comply with the comments on the following page(s).

This review is limited to a review of the information submitted and no responsibility is implied or accepted for results of construction. Failure to identify a code violation does not relieve the owner of the obligation to compliance. Final construction and installations must be in conformance with the code.

Only authority having jurisdiction may grant approval for permit issuance.

Sincerely,



Peter Tutanés  
Technical Advisor & Building Plans Examiner

Report Processed By: cb

CC: [r.sayre@gotion.com](mailto:r.sayre@gotion.com)

Service With Integrity

Member  
ICC NFPA IFIA

October 2, 2024

## CODE STUDY REVIEW NO. 2A

PROJECT NAME: Sigma-Aldrich Inc.  
PROJECT NUMBER: 1132191  
LOCATION: 3050 Spruce Street, St Louis, MO  
CODE REFERENCED: 2015 International Fire Code

These documents **COMPLY** with the above applicable code with the following comments.

This review is based on the documents received on October 1, 2024.

Note: This review is based on three (3) chemicals for the Gotion New Energy facility as supplied to the Village of Manteno. This review is limited to the health or toxicity requirements of said chemicals.

Note: With the removal of Lithium Hexafluorophosphate at this time, the remaining two (2) chemicals (Lithium Iron Phosphate and Carboxymethyl cellulose Sodium Salt) would meet the minimum compliance for the Village of Manteno, Illinois. However Sigma-Aldrich Inc. shall provide information how they intend to manage Lithium Hexafluorophosphate in future phases of operation, provide expected dates on adding this chemical to the facility, safety plan for handling the product in case of emergency.

### Lithium Hexafluorophosphate

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- Precautionary statements: P260 (do not breathe dusts or mists), P270 (do not eat, drink, or smoke when using this product), P234 (keep only in original container), P264 (wash skin thoroughly after handling), and P280 (wear protective gloves, protective clothing, eye protection, and face protection).
- Target organs: Bone and teeth.
- Personal protective equipment: Dust mask type N95 (US), eye shields, and gloves.
- Lethal Dose 50% (LD50) values ranging from about 400 – 1000 mg/kg of body weight (bw) via oral ingestion, and > 4000 mg/kg body weight (bw) via dermal (skin) absorption.

**B & F CONSTRUCTION CODE SERVICES, INC.**

2420 Vantage Drive - Elgin, IL 60124  
Phone: 847/428-7010 - Fax: 847/428-3151

**Sigma-Aldrich Inc.**  
**Project Number: 1132191**  
**Code Study Review No. 2A**  
**October 2, 2024**

This chemical (Lithium Hexafluorophosphate) would be classified by the International Fire Code (IFC) 2024 as Toxic and shall need to be treated accordingly by operations staff or by first responders.

As Lithium Hexafluorophosphate is considered to be Toxic per the IFC then the requirements of Chapter 50 Hazardous Materials General Provisions and Chapter 60 Highly Toxic and Toxic Materials.

The design team and/or facility operator shall respond to the following comments in future phases:

1. Clarify the total amount of Lithium Hexafluorophosphate that will be stored within the facility and in a control area. Please note that Table 5003.1.1(2) allows for one thousand pounds (1,000 lb) per control area (including the know sprinkler credit), without modifiers (decreases per the footnote) allows five hundred pounds (500 lbs) for storage occupancies or approved storage vessels. If the storage occupancy or storage vessel modifiers are used demonstrate how compliance will be achieved. IFC 5003.1.1(2)
2. If the storage exceeds the amounts noted above, the storage requirements of IFC 5004, 5005, 6003 shall apply.

For questions concerning the items in this review contact Michael Paige.



## Chris LaRocque

---

**From:** Chris LaRocque  
**Sent:** Wednesday, October 2, 2024 2:51 PM  
**To:** Plan Review  
**Subject:** RE: 1132427 - Gotion Chemical Review @ 333 South Spruce Street, Manteno, IL

Can you add that it complies with both the 2015 and the 2024 codes?

*Chris LaRocque*  
**Administrator**

*Village of*  
**Manteno**  
98 East Third Street  
Manteno, IL 60950  
815-929-4842

**From:** Plan Review <planreview@bfccs.org>  
**Sent:** Wednesday, October 2, 2024 2:24 PM  
**To:** Chris LaRocque <clarocque@villageofmanteno.com>  
**Cc:** r.sayre@gotion.com  
**Subject:** 1132427 - Gotion Chemical Review @ 333 South Spruce Street, Manteno, IL

Good Day,

We have completed the plan review for Gotion Chemical Review located at 333 South Spruce Street, Manteno, IL.

The Project number 1132427.

Thank you,  
Jean Michels  
Administrative Assistant  
B & F Construction Code Services, Inc.  
2420 Vantage Drive. Elgin IL, 60124  
847-428-7010 Main | 847-428-3151 Fax | [constructioncodes.com](http://constructioncodes.com)

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