



Staff Report

PLANNING DIVISION
DEPARTMENT of COMMUNITY and NEIGHBORHOODS

To: Salt Lake City Appeals Hearing Officer
From: Kelsey Lindquist, kelsey.lindquist@slcgov.com or 385-226-7227
Date: May 13, 2021
Re: Nusano Inc. PLNAPP2021-00406

Appeal of Administrative Decision

ZONING DISTRICT/ORDINANCE SECTION:

- 21A.28.020 M-1 (Light Manufacturing)
- 21A.28.030 M-2 (Heavy Manufacturing)
- Chapter 21A.12 “Administrative Interpretations”
- Chapter 21A.62 “Definitions”

APPELLANT: Brent Bateman, representing Amelia Earhart QOZ Business, LLC

INTERPRETATION ISSUE:

Whether a proposed radioisotope manufacturing use would be an allowed use in the M-1 (Light Manufacturing) zoning district.

ZONING ADMINISTRATOR’S DETERMINATION:

The Zoning Administrator determined that the proposed use of radioisotope manufacturing is not associated with allowed uses in the M-1 (Light Manufacturing) zoning district and that the proposed use is similar to allowed uses in the M-2 (Heavy Manufacturing) zoning district, specifically CHEMICAL MANUFACTURING AND/OR STORAGE (Attachment D).

APPEAL:

The appellant claims that the Administrative Interpretation issued on April 16, 2021, erred in the determination that the proposed use is considered a CHEMICAL MANUFACTURING USE AND/OR STORAGE and thus, erred in determining that the use can only be allowed in the M-2 zoning district. The appellant claims that with the consideration of additional information on the proposed use, it should be determined that the use is most similar to a LIGHT MANUFACTURING USE and thus, should be allowed in the M-1 (Light Manufacturing) zoning district.

PROJECT DESCRIPTION:

Nusano Inc. submitted an administrative interpretation to determine if the proposed use was considered to be similar to allowed uses in the M-1 (Light Manufacturing) zoning district and thus, allowed to be located within the M-1 (Light Manufacturing) zoning district. The submitted information associated with the requested administrative interpretation can be found in Attachment C, which includes a brief description on the proposed use. Based on the information provided within the interpretation submission, the Zoning Administrator found

that the proposed use is most similar to CHEMICAL MANUFACTURING AND/OR STORAGE, which is only allowed in the M-2 (Heavy Manufacturing) zoning district.

PLANNING DIVISION RESPONSE TO APPEAL:

To assist the Hearing Officer in reviewing the appeal, the Planning Division has provided the following responses to the appellants claims.

Claim 1: Nusano's Operations and Production Processes

The appellant claims that the determination made by the Zoning Administrator was due to a lack of clear understanding of the proposed use and lack of information. The appellant provides a clearer representation of the proposed business with the following provided information:

Nusano seeks to establish a radionuclide production facility in Salt Lake City. Radionuclides are already produced in Salt Lake City at Huntsman Cancer institute (Center for Quantitative Cancer Imaging), on their cyclotron. Nusano's operation will be very similar to the Huntsman operation, but at a larger scale in order to fulfil the need for these products in the medical community across the United States and beyond.

Nusano's medical radionuclides will be produced within an area about the size of a vending machine. The procedure involves accelerating particles using a small linear accelerator, and directing them toward highly purified materials, known as targets. Typically, the targets are metal foils weighing less than 5 g (0.2 oz.) Following the contact with the accelerated particles, the targets will contain the desired radionuclide product, co-products and the target material. Using remote manipulators within heavily shielded enclosures, these resulting materials will be separated. Depending on the radionuclide, the separation process takes hours to days. Very small amounts (20 to 200 ml (.6 to 6 fl oz) per production run) of different acids, bases and/or solvents are used. Nusano expects to process between one and six targets per week.

The final medical product will be dispensed into 10 ml (.3 fl oz) vials, crimp sealed and packaged into shielded U.S. Department of Transportation (DOT) approved, Type A shipping containers. All DOT and other regulations will be followed. The products are then shipped, via a commercial DOT certified shipping company (i.e. FedEx), shortly after being prepared. No product is stored on site.

Per production run, the amount of solid waste produced typically will not exceed 5 kg (11 lbs), and the amount of liquid waste typically produced will not exceed 1 L (34 fl oz) of solution. All post-processing waste remains in the shielded enclosures to allow radioactive material to decay. Following that, the waste will be removed into shielded containers for collection into a dedicated (shielded) waste storage room until it is ready for disposal to the appropriate waste disposal facility by a certified disposal company such as Energy Solutions. Waste disposal falls under the authority and direction of the North West Compact, and will comply with all regulations. All post-processing waste will be properly packaged, characterized, and disposed of in strict adherence to federal (Nuclear Regulatory Commission (NRC), Environmental Protection Agency (EPA) and DOT) and state (UT DEQ) regulations and requirements. (Nusano Appeal Brief, pg 2)

Staff Response: This is a more thorough explanation of the proposed use, than what was provided and evaluated as part of the administrative interpretation. With that said, the determination made by staff remains applicable to this proposed use (see Administrative Interpretation, Attachment D). The relevant facts of the use remain, the proposed use manufacturers radioisotopes for medical purposes which produces both radioactive "targets" and radioactive waste. Staff is of the opinion that this use is most similar to CHEMICAL MANUFACTURING AND/OR STORAGE. Additionally, the appellant mentions a similar use located at the Huntsman Cancer Institute, which is located on property owned

by the State of Utah. Pursuant to Utah State Code, Salt Lake City does not have zoning authority over properties owned by the state.

Claim 2: Nusano's Facility

This claim indicates the desired location of Nusano's operation located at 5843 W. Amelia Earhart Drive. The proposed location and building, according to the appellant, incorporates the following:

Nusano intends to undertake these operations at 5843 West Amelia Earhart Drive. This area is several miles from any residential development... None of the work being done at Nusano will create noise, smoke, fumes, odors, glare or health or safety hazards inside or outside the building. All processing will take place entirely within the building. All processing will be done in accordance with all state and federal safety regulations. These regulations are well established.

The building will be designed for Immediate Occupancy, per 2018 International Building Code Section 304. All air emissions in the building will be monitored and controlled. The interior air will pass through a series of filters (ie., pre-filter, charcoal, HEPA), and an air delay system where needed will be used, all to fully comply with all EPA and NRC requirements for air discharge. A backup generator will be utilized to ensure air emissions control in the event of power loss. Additionally, the facility will be shielded to ensure that the annual radiation exposure at the site property line is less 1% of the NRC annual allowable limits of 100 mrem. The building will have a substantial foundation and structural support to protect against natural building damage. No portion of the facility containing radioactivity will be connected to the municipal sewage, and all radioactive materials will be contained in a shielded environment to reduce exposure to fully comply with NRC requirements. (Nusano Appeal Brief, pg 3)

Staff Response: The appellant is correct that the proposed location of 5843 W. Amelia Earhart Drive is not located near other zoning districts that permit residential uses, but rather it is located near other M-1 zoned properties. Even though this particular property is not located near a residential use, other M-1 zoned properties within Salt Lake City boundaries are adjacent or abutting to zoning districts that permit residential uses. When staff evaluates an administrative interpretation for a use in a specific zoning district, staff takes the entire context of that district into consideration. If a use is determined to be appropriate and similar to allowed uses in a particular zoning district, then it is allowed district wide and not limited to a particular site. With that said, staff does not believe this use to be similar to other allowed uses in the M-1 zoning district.

Claim 3: The Administrative Interpretation

This claim addresses the definition of CHEMICAL MANUFACTURING AND/OR STORAGE to be incorrect for the proposed use. The appellant suggests that the most accurate definition is LIGHT MANUFACTURING, with the following statement:

In the Administrative Interpretation, the author acknowledged that the Salt Lake City ordinances contain no definition associated with radioisotope manufacturing. The Administrative interpretation then appears to attempt to slot Nusano's proposed use into the closest match it could find: CHEMICAL MANUFACTURING and/or STORAGE. Unfortunately, not only does this category not align with Nusano's proposed use, but this finding prevents Nusano from locating at the site altogether because this use is considered heavy manufacturing and thus is not allowed in the M-1 (Light Manufacturing) zoning district.

Nevertheless, a clearer understanding of Nusano's proposed use, along with a review of the Salt Lake City ordinances, shows that Nusano's proposed use has been miscategorized.

Nusano's use is Light Manufacturing, and fits and belongs in the M-1 (Light Manufacturing) zone. (Nusano Appeal Brief, pg 3)

Staff Response: Staff acknowledges that there is no definition for radioisotope manufacturing within the Salt Lake City Zoning Ordinance. However, the definition of CHEMICAL MANUFACTURING AND/OR STORAGE addresses the proposed use and its potential impacts. The provided definition of CHEMICAL MANUFACTURING AND/OR STORAGE:

A facility engaged in making and storing chemical products from raw or partially finished materials.

Even though this definition is broad, it does encompass the proposed use by Nusano. The use involves producing radionuclides by utilizing a linear accelerator. The radionuclides are then further processed, as described on page 2 of the appeal submittal (Attachment B). This use produces radioactive waste and a radioactive product, thus staff believes the administrative determination to be correct.

Claim 4: Nusano's Use Does Not Fit Into Heavy Manufacturing

The appellant claims that the proposed use was miscategorized as chemical manufacturing and storage, which is an allowed use in the M-2 (Heavy Manufacturing) zoning district. Through this claim, the appellant addresses the purpose statement of the M-2 (Heavy Manufacturing) zoning district, with the following statement:

The City's CHEMICAL MANUFACTURING and/or STORAGE use category is defined as "A facility engaged in making and storing chemical products from raw or partially finished materials." This definition is highly flawed, because it could include any number of uses at any level of intensity. The fact that this use category is limited only to the Heavy Manufacturing (M-2) zoning district, indicates that this category cannot be interpreted broadly, because doing so would mandate any manufacturing involving chemicals, no matter how benign, into the Heavy Manufacturing zoning district. Accordingly, this use category must be read narrowly, considering the heavy manufacturing component.

The purpose of the M-2 Heavy Manufacturing District, as stated in Salt Lake City Ordinance (in relevant part) is: "... To provide an environment for larger and more intensive industrial uses that do not require, and may not be appropriate for, a nuisance free environment." Salt Lake City Code 21A.28.030. Moreover, the Heavy Manufacturing Use Category is intended for:

The assembly, fabrication, or processing of goods and materials using processes that ordinarily have greater than average impacts on the environment, or that ordinarily have significant impacts on the use and enjoyment of adjacent property in terms of noise, smoke, fumes, odors, glare, or health and safety hazards, or that otherwise do not constitute \light manufacturing\ ". Heavy manufacturing generally includes processing and fabrication of large or bulky products made from extracted or raw materials.

Salt Lake City Code 21.62.040. These definitions clearly do not apply to Nusano's proposed use. Nusano does not produce any large or bulky materials or products. Nusano's process produces extremely small materials in a very small area. Moreover, Nusano's process will have zero effect on the environment or surrounding properties, and cannot do so due to the stringent regulations it is obligated to follow. There is zero noise, smoke, fumes, odors, glare, or health and safety hazards resulting from Nusano's activities. Nusano's activities are completely nuisance free. (Nusano Appeal Brief, pg 4)

Staff Response: The M-2 (Heavy Manufacturing) purpose statement, includes the following:

The purpose of the M-2 Heavy Manufacturing District is to provide an environment for larger and more intensive industrial uses that do not require, and may not be appropriate for, a nuisance free environment. This zone is appropriate in locations that are supported by the applicable Mater Plan policies adopted by the City. This district is intended to provide areas in the city that generate employment opportunities and to promote economic development. The uses include other types of land uses that support and provide service to manufacturing and industrial uses. Due to the nature of uses allowed in this zone, land uses that may be adversely impacted by heavy manufacturing activities are not allowed. Certain land uses are prohibited in order to preserve land for manufacturing uses. Safe, convenient and inviting connections that provide access to businesses from public sidewalks, bike paths and streets are necessary and to be provided in an equal way.

Staff acknowledges that the proposed use does not require a large amount of space and does not produce large or bulky products. Regardless of the size of the facility, equipment and the final product, the use incorporates health and safety hazards that could “have a greater than average impact on the environment.” Further, staff does not agree with the following claim provided by the appellant, “There is zero noise, smoke, fumes, odors, glare or health and safety hazards resulting from Nusano’s activities.” (*Nusano Appeal Brief*, pg 4) This claim is misleading. Yes, if every safety regulation, protocol and process are followed perfectly, there should be little to no impact on the surrounding properties. However, given that the use is regulated by the NorthWest Interstate Compact (NWIC) which is a cooperative to manage radioactive waste, this use could be harmful to surrounding properties and the environment. With this potential impact, this use should be limited to the M-2 (Heavy Manufacturing) zoning district, which is a more isolated zoning district, and further away from residential uses which would limit the impact to the environment and other less intensive zoning districts.

Claim 5: Nusano’s Use Fits Into Light Manufacturing

The appellant suggests that the more appropriate zoning consideration should be the M-1 (Light Manufacturing) zoning district. Additionally, the appellant suggests that the use should be classified as a light manufacturing use. The following statements were provided in support of this claim:

Conversely, the stated purpose of the M-1 Light Manufacturing District: “. . . is to provide an environment for light industrial uses that produce no appreciable impact on adjacent properties, that desire a clean attractive industrial setting, and that protects nearby sensitive lands and waterways.” Salt Lake City Code 21A.28.020. The Light Manufacturing Use Category is intended for:

The assembly, fabrication or processing of goods and materials using processes that ordinarily do not create noise, smoke, fumes, odors, glare, or health or safety hazards outside of the building or lot where such assembly, fabrication or processing takes place or where such processes are housed entirely within a building. Light manufacturing generally includes processing and fabrication of finished products, predominantly from previously prepared materials, and includes processes which do not require extensive floor areas or land areas.

*This category correctly aligns with and describes Nusano’s operations. As shown, Nusano’s process doesn’t create noise, smoke, fumes, glare or health or safety hazards or anything that will impact at all outside of the building. Stringent safety measures govern safety within the building. Nusano’s process does not require extensive floor area or land area for their project. (*Nusano Appeal Brief*, pg 4)*

Staff Response: As evidenced in the staff response to Claim 4, staff believes that the classification of the proposed use as a chemical manufacturing use to be correct.

Standards for Use Interpretation

Use interpretation standards, found in 21A.12.050, were addressed by staff within the administrative interpretation under appeal (Attachment D). Since this appeal is de novo, staff has included the analysis of the use interpretation standards, below.

A. Any use defined in Chapter 21A.62 of this title shall be interpreted as defined;

Finding: The Zoning Ordinance does not define radioisotope manufacturing. The proposed use is most similar to *chemical manufacturing and/or storage*, based on the provided definition from Chapter 21A.62 of the Salt Lake City Zoning Ordinance, and the definition of chemical, isotope and radioisotope from Webster Collegiate Dictionary.

B. Any use specifically listed without a “P” or “C” designated in the table of permitted and conditional uses for a district shall not be allowed in that zoning district;

Finding: The listed use that best match the proposed use is a allowed use in the M-2 (Heavy Manufacturing) zoning district.

C. No use interpretation shall allow a proposed use in a district unless evidence is presented demonstrating that the proposed will comply with the development standards established for that particular district;

Finding: It has been found that the proposed use as described meets the definition of *chemical manufacturing and storage*, which is not a allowed use in the M-1 zoning district. Therefore, the use may not be established in the M-1 zoning district.

D. No use interpretation shall allow any use in a particular district unless such use is substantially similar to the uses allowed in that district and is more similar to such uses than to uses allowed in a less restrictive district;

Finding: While the proposed use may have some similarities to uses allowed in M-1 district, it is substantially similar to a listed and allowed use in the M-2 zoning district, such as *chemical manufacturing and/or storage*. Therefore, this use is not allowed in the M-1 (Light Manufacturing) zoning district.

E. If the proposed use is most similar to a conditional use authorized in the district which it is proposed to be located, any use interpretation allowing such use shall require that it may be approved only as a conditional use pursuant to Chapter 21A.54 of this title; and

Finding: As described in Standard C, the most similar land use is *chemical manufacturing and/or storage*. which is not a allowed use in the M-2 zoning district.

F. No use interpretation shall permit the establishment of any use that would be inconsistent with the statement of purpose of that zoning district.

Finding:

The purpose of the M-1 Light Manufacturing District is to provide an environment for light industrial uses that produce no appreciable impact on adjacent properties, that desire a clean attractive industrial setting, and that protects nearby sensitive lands and waterways. This zone is appropriate in locations that are supported by the applicable Master Plan policies adopted by the City. This district is intended to provide areas in the City that generate employment opportunities and to promote economic development. The uses include other types of land uses that support and provide service to manufacturing and industrial uses. Safe, convenient, and inviting connections that provide access to businesses from public sidewalks, bike paths and streets are necessary and to be provided in an equal way. Certain land uses are prohibited in order to preserve land for manufacturing uses and to promote the importance of nearby environmentally sensitive lands.

The proposed use, as described by the applicant, is inconsistent with the purpose statement. The proposed use is not appropriate in the M-1 (Light Manufacturing) zoning district.

NEXT STEPS:

This is an appeal of an Administrative Interpretation. Therefore, the standard of review for the appeal shall be de novo. The Appeals Hearing Officer shall review the matter appealed anew, based upon applicable procedures and standards for approval, and shall give no deference to the original decision below.

A public hearing must be held prior to the Appeal Hearing Officer making a decision.

If the administrative decision is upheld, the decision stands and the use will be allowed in the M-2 (Heavy Manufacturing) zoning district.

If the administrative decision is overturned a new determination would need to be made on what the proposed use is most similar to.

The decision of the appeals hearing officer can be appealed to Third District Court within 30 days of the decision.

ATTACHMENTS:

- A.** Vicinity Map
- B.** Appeal application and Materials
- C.** Administrative Interpretation Application Material
- D.** Administrative Interpretation
- E.** Public Input

ATTACHMENT A: Vicinity Map



ATTACHMENT B: Appeal Application and Documentation



Appeal of a Decision

SALT LAKE CITY PLANNING

OFFICE USE ONLY

Petition #:	Received By:	Date Received:
Appealed decision made by:		
<input type="checkbox"/> Planning Commission	<input checked="" type="checkbox"/> Administrative Decision	<input type="checkbox"/> Historic Landmark Commission
Appeal will be forwarded to:		
<input type="checkbox"/> Planning Commission	<input type="checkbox"/> Appeal Hearing Officer	<input type="checkbox"/> Historic Landmark Commission
Petition Name and # Being Appealed:		

PLEASE PROVIDE THE FOLLOWING INFORMATION

Decision Appealed:	
Administrative Interpretation	
Address of Subject Property:	
5843 West Amelia Earhart Drive, Salt Lake City, UT 84116	
Name of Appellant:	Phone:
Matthew Rindlisbacher, Wasatch Commercial Management	
Address of Appellant:	
299 South Main Street, Suite 2400, Salt Lake City, UT 84111	
E-mail of Appellant:	Cell/Fax:
Name of Property Owner (if different from appellant):	
Amelia Earhart QOZ Business LLC	
E-mail of Property Owner:	Phone:
Appellant's Interest in Subject Property:	
Owner	

AVAILABLE CONSULTATION

Please email zoning@slcgov.com if you have any questions regarding the requirements of this application.

APPEAL PERIODS

- An appeal shall be submitted within ten (10) days of the decision.
- The Applicant of an HLC decision being appealed can submit within thirty (30) days of the decision.

REQUIRED FEE

- Filing fee of \$265, plus additional fees for required public notices and multiple hearings.
- Filing fees must be submitted within the required appeal period. Noticing fees will be assessed after application is submitted

SIGNATURE

If applicable, a notarized statement of consent authorizing applicant to act as an agent will be required.

Signature of Owner or Agent:	Date:
	4-23-2021

SUBMITTAL REQUIREMENT



A written description of the alleged error and the reason for this appeal.

WHERE TO FILE THE COMPLETE APPLICATION

Apply online through the [Citizen Access Portal](#). There is a [step-by-step guide](#) to learn how to submit online.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED



I acknowledge that Salt Lake City requires the items above to be submitted before my application can be processed. I understand that Planning will not accept my application unless all of the following items are included in the submittal package.

Additional Guidelines for Those Appealing a Planning Commission or Landmarks Commission Decision [Section 21A.16](#) of the City Ordinance

A person who challenges a decision by the Planning Commission or the Landmarks Commission bears the burden of showing that the decision made by the commission was in error.

The hearing officer, according to state statute, must assume that the decision is correct and only reverse it if it is illegal or not supported by substantial evidence in the record.

“Substantial evidence” means information that is relevant to the decision and credible. Substantial evidence does not include public clamor and emotion. It involves facts and not mere speculation. A witness with particular expertise can provide substantial evidence, but conjecture and public opinion alone are not substantial evidence.

The “record” includes information, including the application by the person seeking approval, the staff report, the minutes of the meeting, and any information submitted to the commission by members of the public, the applicant or others, before the decision was made. It does not include facts or opinion, even expert opinion, expressed after the decision is made or which was not available to the commission at the time the decision was made.

A decision is “illegal” if it is contrary to local ordinance, state statute or case law, or federal law. An applicant is entitled to approval if the application complies with the law, so a person challenging a denial should show that the application complied with the law; a person challenging an approval should show that the application did not conform to the relevant law. Issues of legality are not restricted to the record of the decision, but the facts supporting or opposing the decision are limited to those in the record.

With regard to the factual information and evidence that supports a decision, the person bringing the appeal, according to a long line of decisions handed down by the Utah State Supreme Court and the Court of Appeals, has a burden to “marshal the evidence” and then to demonstrate that the evidence which has been marshaled is not sufficient to support the decision.

The appellant is therefore to:

1. Identify the alleged facts which are the basis for the decision, and any information available to the commission when the decision is made that supports the decision. Spell it out. For example, your statement might begin with: “The following information and evidence may have been relied upon by the Commission to support their decision . . .”
2. Show why that basis, including facts and opinion expressed to the commission is either irrelevant or not credible. Your next statement might begin with: “The information and evidence which may have been relied upon cannot sustain the decision because . . .”

If the evidence supporting the decision is not marshaled and responded to, the hearing officer cannot grant your appeal. It may be wise to seek the advice of an attorney experienced in local land use regulation to assist you.

Salt Lake City Corp
Planning Counter
451 South State Street, Room 215
PO Box 145471
Salt Lake City, UT 84114

Re: Appeal of Administrative Interpretation
Nusano, Inc.
PLNZAD2021-00221

Dear Planning Staff:

This law firm represents the owner, Amelia Earhart QOZ Business, LLC, in connection with the proposed business to be located at 5843 West Amelia Earhart Drive in Salt Lake City. Pursuant to Chapter 21A.16 of the Salt Lake City Code, please accept this letter and its attachments as the official appeal of the Administrative Interpretation decision dated April 16, 2021, concerning whether the business of Nusano, Inc. ("Nusano") is an allowed use in the M-1 (Light Manufacturing) zoning district.

The Administrative Interpretation mischaracterizes (through probable lack of information) Nusano's business and intended uses at the proposed site. The categorization applied in the administrative interpretation is therefore in error. Nusano's operations, when appropriately and properly categorized, meet the city's definition of "Light Manufacturing," and accordingly, are an allowed use in the M-1 zone.

Accordingly, after considering the following, we ask that the Administrative Interpretation be overturned and that Nusano's operations be categorized as "Light Manufacturing" in the M-1 zone.

Nusano's Operations and Production Processes

Nusano produces a broad range of medical (diagnostic and therapeutic) radionuclides.¹ The products that Nusano will produce on the site are widely and routinely used in health care -- from providing diagnostic information about organ function to cancer treatment by targeting specific cells while leaving surrounding tissue uninjured. These radionuclides are used in millions of medical treatments per year, including very frequently in Utah.

¹ A *radionuclide*, according to the National Cancer Institute definition, is an unstable form of a chemical element that releases radiation as it breaks down and becomes more stable. Radionuclides may occur in nature or be made in a laboratory. In medicine, they are used in imaging tests and in treatment. Also called radioisotope. <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/radionuclide>

Nusano seeks to establish a radionuclide production facility in Salt Lake City. Radionuclides are already produced in Salt Lake City at Huntsman Cancer Institute (Center for Quantitative Cancer Imaging), on their cyclotron.² Nusano's operation will be very similar to the Huntsman operation, but at a larger scale in order to fulfil the need for these products in the medical community across the United States and beyond.

Nusano's medical radionuclides will be produced within an area about the size of a vending machine. The procedure involves accelerating particles using a small linear accelerator, and directing them toward highly purified materials, known as targets. Typically, the targets are metal foils weighing less than 5 g (0.2 oz). Following the contact with the accelerated particles, the targets will contain the desired radionuclide product, co-products and the target material. Using remote manipulators within heavily shielded enclosures, these resulting materials will be separated. Depending on the radionuclide, the separation process takes hours to days. Very small amounts (20 to 200 ml (0.6 to 6 fl. oz) per production run) of different acids, bases and/or solvents are used. Nusano expects to process between one and six targets per week.

The final medical product will be dispensed into 10 mL (0.3 fl oz) vials, crimp sealed, and packaged into shielded U.S. Department of Transportation (DOT) approved, Type A shipping containers. All DOT and other regulations will be followed. The products are then shipped, via a commercial DOT certified shipping company (i.e., FedEx), shortly after being prepared. No product is stored on site.

Per production run, the amount of solid waste produced typically will not exceed 5 kg (11 lbs), and the amount of liquid waste typically produced will not exceed 1 L (34 fl oz) of solution. All post-processing waste remains in the shielded enclosures to allow radioactive material to decay. Following that, the waste will be removed into shielded containers for collection into a dedicated (shielded) waste storage room until it is ready for disposal to the appropriate waste disposal facility by a certified disposal company such as EnergySolutions. Waste disposal falls under the authority and direction of the NorthWest Compact,³ and will comply with all regulations. All post-processing waste will be properly packaged, characterized, and disposed of in strict adherence to federal (Nuclear Regulatory Commission (NRC), Environmental Protection Agency (EPA) and DOT) and state (UT DEQ) regulations and requirements.

Nusano's Facility

Nusano intends to undertake these operations at 5843 West Amelia Earhart Drive. This area is several miles from any residential development. Please see the attached site plan. None of the work being done at Nusano will create noise, smoke, fumes, odors, glare, or health or safety hazards inside or outside the building. All processing will take place entirely within the building. All processing will be done in accordance with all state and federal safety regulations. These regulations are well established.

² Note that the Huntsman Cancer Institute is not located in the City's M-2 zoning district. According to the online Salt Lake City Zoning Map, the institute is located in the OS Open Space Zoning District.

³ The NorthWest Interstate Compact or NWIC is a cooperative effort of eight states to protect people and the environment, and maintain and enhance economic viability, while sharing the responsibilities of low-level radioactive waste management. The NWIC was created in 1981 with member states Alaska, Hawaii, Idaho, Montana, Oregon, Utah, and Washington. The NWIC was ratified by Congress in 1985. Wyoming was the eighth state to join the compact in March of 1992.

The building will be designed for Immediate Occupancy, per 2018 International Building Code Section 304. All air emissions in the building will be monitored and controlled. The interior air will pass through a series of filters (i.e., pre-filter, charcoal, HEPA), and an air delay system where needed will be used, all to fully comply with all EPA and NRC requirements for air discharge. A backup generator will be utilized to ensure air emissions control in the event of power loss. Additionally, the facility will be shielded to ensure that the annual radiation exposure at the site property line is **less than** 1% of the NRC annual allowable limits of 100 mrem.⁴ The building will have a substantial foundation and structural support to protect against natural building damage. No portion of the facility containing radioactivity will be connected to the municipal sewage, and all radioactive materials will be contained in a shielded environment to reduce exposure to fully comply with NRC requirements.

The Administrative Interpretation

In the Administrative Interpretation, the author acknowledged that the Salt Lake City ordinances contain no definition associated with radioisotope manufacturing. The Administrative Interpretation then appears to attempt to slot Nusano's proposed use into the closest match it could find: CHEMICAL MANUFACTURING and/or STORAGE. Unfortunately, not only does this category not align with Nusano's proposed use, but this finding prevents Nusano from locating at the site altogether because this use is considered heavy manufacturing and thus is not permitted in the M-1 (Light Manufacturing) zoning district.

Nevertheless, a clearer understanding of Nusano's proposed use, along with a review of the Salt Lake City ordinances, shows that Nusano's proposed use has been miscategorized. Nusano's use is Light Manufacturing, and fits and belongs in the M-1 (Light Manufacturing) zone.

Nusano's Use does not Fit into the Heavy Manufacturing Category

The City's CHEMICAL MANUFACTURING and/or STORAGE use category is defined as "A facility engaged in making and storing chemical products from raw or partially finished materials." This definition is highly flawed, because it could include any number of uses at any level of intensity.⁵ The fact that this use category is limited only to the Heavy Manufacturing (M-2) zoning district, indicates that this category cannot be interpreted broadly, because doing so would mandate any manufacturing involving chemicals, no matter how benign, into the Heavy Manufacturing zoning district. Accordingly, this use category must be read narrowly, considering the heavy manufacturing component.

The purpose of the M-2 Heavy Manufacturing District, as stated in Salt Lake City Ordinance (in relevant part) is: ". . . to provide an environment for larger and more intensive industrial uses that do not require, and may not be appropriate for, a nuisance free environment." Salt Lake City Code 21A.28.030. Moreover, the Heavy Manufacturing Use Category is intended for:

⁴ One mrem/year is roughly equal to the radiation exposure from 1 CT scans of the abdomen and pelvis over that year.

⁵ Examples of benign and mundane process that could fit this definition by its plain language include mixing epoxy, manufacturing shampoo, or carbonating a soft drink.

The assembly, fabrication, or processing of goods and materials using processes that ordinarily have greater than average impacts on the environment, or that ordinarily have significant impacts on the use and enjoyment of adjacent property in terms of noise, smoke, fumes, odors, glare, or health and safety hazards, or that otherwise do not constitute "light manufacturing". Heavy manufacturing generally includes processing and fabrication of large or bulky products made from extracted or raw materials.

Salt Lake City Code 21A.62.040. These definitions clearly do not apply to Nusano's proposed use. Nusano does not produce any large or bulky materials or products. Nusano's process produces extremely small materials in a very small area. Moreover, Nusano's process will have zero effect on the environment or surrounding properties, and cannot do so due to the stringent regulations it is obligated to follow. There is zero noise, smoke, fumes, odors, glare, or health and safety hazards resulting from Nusano's activities. Nusano's activities are completely nuisance free.

Nusano's Use Fits into the Light Manufacturing Category

Conversely, the stated purpose of the M-1 Light Manufacturing District: ". . . is to provide an environment for light industrial uses that produce no appreciable impact on adjacent properties, that desire a clean attractive industrial setting, and that protects nearby sensitive lands and waterways." Salt Lake City Code 21A.28.020. The Light Manufacturing Use Category is intended for:

The assembly, fabrication or processing of goods and materials using processes that ordinarily do not create noise, smoke, fumes, odors, glare, or health or safety hazards outside of the building or lot where such assembly, fabrication or processing takes place or where such processes are housed entirely within a building. Light manufacturing generally includes processing and fabrication of finished products, predominantly from previously prepared materials, and includes processes which do not require extensive floor areas or land areas.

This category correctly aligns with and describes Nusano's operations. As shown, Nusano's process doesn't create noise, smoke, fumes, glare or health or safety hazards or anything that will impact at all outside of the building. Stringent safety measures govern safety within the building. Nusano's process does not require extensive floor area or land area for their project.

Conclusion

With a clear understanding of Nusano's uses and processes, the land use category that best fits is *light manufacturing*. CHEMICAL MANUFACTURING and/or STORAGE, the category suggested by the Administrative Interpretation, implies a heavy manufacturing process and is not available in the M-1 zone. Nusano's process is light and without the hazards and disturbances inherent in an M-2 zone-type use. This is not just theoretical; it is proven. Witness the other manufacturers of these life-saving medical products, including the Huntsman Cancer Institute. They are safe, and do not disturb surrounding properties. These processes clearly do not merit a Heavy Manufacturing classification. To the contrary, these life-saving medical products are the type of which Salt Lake City should be proud to be the home and be comfortable having located in an M-1 zone.

ATTACHMENT C: Administrative Interpretation Application Material



March 9, 2021

Salt Lake City Planning
451 S. State St
SLC, Utah 84111

RE: Administrative interpretation

- A. Interpretation is sought for 21A.28.020: M-1 Light Manufacturing district uses as specified in Section 21A.33.040 “table of permitted and conditional uses for manufacturing districts.”
- B. There is no specific use listed in section 21A.33.040 that includes the manufacturing of radioisotopes.
- C. The M-1 light manufacturing district allows for medical manufacturing, laboratory space, and testing.
- D. Laboratory (medical), Laboratory, testing. Light manufacturing. Proposed Medical radioisotope manufacturing high level overview as stated below:

Nusano, Inc. is a life sciences company that will produce and distribute radioisotopes for medical applications. Nusano will utilize Linear Accelerator (“Linac”) technology to irradiate non-radioactive (“target”) materials to create radioisotopes that will be the future of cancer diagnostics and therapy. Linac technology is commonly used, with over 2,300 in the United States, to drive radiation cancer therapy. Nusano will utilize this same technology as the production engine for medical diagnostic and therapeutic radioisotopes. Nusano’s final product(s) will be approved by the U.S. Food and Drug Administration and shipped to radiopharmacies around the country for incorporation into pharmaceuticals for patient use.

The facility will also house laboratories to extract and purify the radioactive material, as well as infrastructure to maintain superior quality control, and sophisticated packaging and shipping capabilities. The procedures for safe handling, processing of these radioisotopes is well understood by regulatory bodies across the country. All work with radioactive materials at the facility will be performed under strict monitoring and control in full compliance with established federal and state regulations. Nusano’s medical isotope production does not entail the use of a nuclear reactor utilizing uranium-based nuclear materials.

Products will be shipped to (radio)pharmacies in federally licensed shipping containers. All byproduct radioactive waste will be stored, controlled and monitored within the company’s shielded facility, and allowed to naturally decay to low enough radioactivity levels before being transported by licensed carriers to federally licensed low-level



radioactive waste disposal sites. Furthermore, since no uranium-based materials will be used, there will be no high-level used nuclear fuel waste streams produced requiring removal and disposal.

Since Utah is a U.S. Nuclear Regulatory Commission (NRC) Agreement State, operations involving radioactive materials and radiation-generating machines will be licensed and conducted under the authority of a Broadscope Radioactive Materials License issued by the State's Department of Environmental Quality.

The medical isotopes produced by Nusano have significant potential to improve cancer therapy in both Utah, the nation and globally. Their widespread use has been hampered by the difficulty in producing these medical isotopes at large scales, and Nusano's unique technology is expected to help with meeting this market demand.

ATTACHMENT D: Administrative Interpretation

April 16, 2021

**ADMINISTRATIVE INTERPRETATION
DECISION AND FINDINGS
PLNZAD2021-00221**



REQUEST:

A request for an administrative interpretation regarding a proposed business located within the M-1 (Light Manufacturing) zoning district. The proposed business, Nusano, Inc. is a life sciences company that produces and distributes radioisotopes for medical purposes.

DECISION:

The Zoning Administrator finds that the proposed use is not associated with permitted uses in the M-1 (Light Manufacturing) zoning district, rather the proposed use is similar to permitted uses in the M-2 (Heavy Manufacturing) zoning district, specifically *chemical manufacturing and/or storage*.

BACKGROUND:

Due to the lack of a specific land use that permits radioisotope manufacturing, the applicant believes that the most similar use is considered a combination of the following uses:

- **LABORATORY, MEDICAL, DENTAL, OPTICAL:** A laboratory processing on or off-site orders limited to medical testing and precision fabrication of dental/optical articles worn by patients.
- **LABORATORY, TESTING:** A use engaged in determining the physical qualities of construction, medical or manufactured materials. This use does not include research laboratories engaged in scientific experimentation.
- **LIGHT MANUFACTURING:** The assembly, fabrication or processing of goods and materials using processes that ordinarily do not create noise, smoke, fumes, odors, glare, or health or safety hazards outside of the building or lot where such assembly, fabrication or processing takes place or where such processes are housed entirely within a building. Light manufacturing generally includes processing and fabrication of finished products, predominantly from previously prepared materials, and includes processes which do not require extensive floor areas or land areas. The term "light manufacturing" shall include uses such as electronic equipment production and printing plants. The term "light manufacturing" shall not include any use which is otherwise listed specifically in the table of permitted and conditional uses for the category of zoning district or districts under this title.

Additionally, the use is described by the applicant as the following:

Nusano, Inc. is a life sciences company that will produce and distribute radioisotopes for medical applications. Nusano will utilize Linear Accelerator ("Linac") technology to irradiate non-radioactive ("target") materials to create radioisotopes that will be the future of cancer diagnostics and therapy. Linac technology is commonly used, with over 2,300 in the United States, to drive radiation cancer therapy. Nusano will utilize this same technology as the production engine for medical diagnostic and therapeutic

radioisotopes. Nusano's final product(s) will be approved by the U.S. Food and Drug Administration and shipped to radiopharmacies around the country for incorporation into pharmaceuticals for patient use.

The facility will also house laboratories to extract and purify the radioactive material, as well as infrastructure to maintain superior quality control, and sophisticated packaging and shipping capabilities. The procedures for safe handling, processing of these radioisotopes is well understood by regulatory bodies across the country. All work with radioactive materials at the facility will be performed under strict monitoring and control in full compliance with established federal and state regulations. Nusano's medical isotope production does not entail the use of a nuclear reaction utilizing uranium-based nuclear material.

FINDINGS

While there isn't a specific land use definition associated with radioisotope manufacturing, the Zoning Administrator finds that the following defined use is most similar to the use of radio isotope manufacturing.

CHEMICAL MANUFACTURING and/or STORAGE: A facility engaged in making and storing chemical products from raw or partially finished materials.

In order to aid in this requested use interpretation, the Webster's Collegiate Dictionary definition of chemical, isotope and radioisotope are provided below:

Chemical: A substance obtained by a chemical process or producing a chemical effect.

Isotope: Any of two or more species of atoms of a chemical element with the same atomic number and nearly identical chemical behavior but with differing atomic mass or mass number and different physical properties.

Radioisotope: A radioactive isotope.

The proposal to produce and sell radioisotopes is most similar to *chemical manufacturing and/or storage*, based on the provided definitions of *chemical manufacturing and/or storage*, as well as *chemical*, *isotope* and *radioisotope*. Additionally, the indicated use provided by the applicant does not fit the suggested definitions of laboratory, medical, dental, optical or laboratory testing, based on the use of manufacturing radioisotopes for future medical use and the associated chemical and radioactive waste.

The Salt Lake City Zoning Ordinance indicates that the defined use is permitted in the M-2 (Heavy Manufacturing) and not the M-1 (Light Manufacturing) zoning district.

Standards for Use Interpretation

Use interpretations are subject to the standards found in section 21A.12.050 of the Salt Lake City Zoning Ordinance. The analysis of each standard is as follows:

A. Any use defined in Chapter 21A.62 of this title shall be interpreted as defined;

Finding: The proposed use is most similar to *chemical manufacturing and/or storage*, based on the provided definition from Chapter 21A.62 of the Salt Lake City

Zoning Ordinance, and the definition of chemical, isotope and radioisotope from Webster Collegiate Dictionary.

- B. Any use specifically listed without a “P” or “C” designated in the table of permitted and conditional uses for a district shall not be allowed in that zoning district;**

Finding: The listed use that best match the proposed use is a permitted use in the M-2 (Heavy Manufacturing) zoning district.

- C. No use interpretation shall allow a proposed use in a district unless evidence is presented demonstrating that the proposed will comply with the development standards established for that particular district;**

Finding: It has been found that the proposed use as described meets the definition of and *chemical manufacturing and storage*, which is not a permitted use in the M-1 zoning district. Therefore, the use may not be established in the M-1 zoning district.

- D. No use interpretation shall allow any use in a particular district unless such use is substantially similar to the uses allowed in that district and is more similar to such uses than to uses allowed in a less restrictive district;**

Finding: While the proposed use may have some similarities to uses allowed in M-1 district, it is substantially similar to a listed and permitted use in the M-2 zoning district, such as *chemical manufacturing and/or storage*. Therefore, this use is not permitted in the M-1 (Light Manufacturing) zoning district.

- E. If the proposed use is most similar to a conditional use authorized in the district which it is proposed to be located, any use interpretation allowing such use shall require that it may be approved only as a conditional use pursuant to Chapter 21A.54 of this title; and**

Finding: As described in Standard C, the most similar land use is *chemical manufacturing and/or storage*. which is not a permitted use in the M-2 zoning district.

- F. No use interpretation shall permit the establishment of any use that would be inconsistent with the statement of purpose of that zoning district.**

Finding:

The purpose of the M-1 Light Manufacturing District is to provide an environment for light industrial uses that produce no appreciable impact on adjacent properties, that desire a clean attractive industrial setting, and that protects nearby sensitive lands and waterways. This zone is appropriate in locations that are supported by the applicable Master Plan policies adopted by the City. This district is intended to provide areas in the City that generate employment opportunities and to promote economic development. The uses include other types of land uses that support and provide service to manufacturing and industrial uses. Safe, convenient, and inviting connections that provide access to businesses from public sidewalks, bike paths and streets are necessary and to be provided in an equal way. Certain land uses are prohibited in order to preserve land for manufacturing uses and to promote the importance of nearby environmentally sensitive lands.

The proposed use, as described by the applicant, is inconsistent with the purpose statement. The proposed use is not appropriate in the M-1 (Light Manufacturing) zoning district.

If you have any questions regarding this interpretation please contact Kelsey Lindquist at (385) 226-7227 or by email at kelsey.lindquist@slcgov.com.

APPEAL PROCESS:

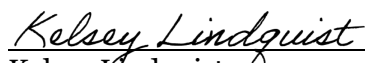
An applicant or any other person or entity adversely affected by a decision administering or interpreting this Title may appeal to the Appeals Hearing Officer. Notice of appeal shall be filed within ten (10) days of the administrative decision. The appeal shall be filed with the Planning Division and shall specify the decision appealed and the reasons the appellant claims the decision to be in error. Applications for appeals are located on the Planning Division website at <http://www.slcgov.com/planning/planning-applications> along with information about the applicable fee. Appeals may be filed in person or by mail at:

In Person: Salt Lake City Corp Planning Counter 451 S State Street, Room 215 Salt Lake City, UT	US Mail: Salt Lake City Corp Planning Counter PO Box 145471 Salt Lake City, UT 84114-5417
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NOTICE:

Please be advised that a determination finding a particular use to be a permitted use or a conditional use shall not authorize the establishment of such use nor the development, construction, reconstruction, alteration, or moving of any building or structure. It shall merely authorize the preparation, filing, and processing of applications for any approvals and permits that may be required by the codes and ordinances of the City including, but not limited to, a zoning certificate, a building permit, and a certificate of occupancy, subdivision approval, and a site plan approval.

Dated this 16th day of April, 2021 in Salt Lake City, Utah.



Kelsey Lindquist
Senior Planner

cc: Nick Norris, Planning Director
Joel Paterson, Zoning Administrator
Posted to Web
Applicable Recognized Organizations

ATTACHMENT E: Public Process and Input

Notice of a Public Hearing was mailed on May 6, 2021

Property posted on May 10, 2021

Public Comments

No public comments were received prior to the publication of this report.