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Leo Jacobs,
Solid Waste & Fleet Supervisor

DRAFT 2

CITY OF SEDRO-WOOLLEY
Sedro-Woolley Municipal Building

MEMO TO: Nicole McGowan
FROM: Leo Jacobs
RE: Seattle galvanizing proposal (follow up comments)
DATE: January 12, 2023

Nicole,

I am following up on items addressed in Mr. Clarks rebuttal. My responses are in red. This proposal should be sent to Skagit County Health department for comment they know all the codes and compliance codes that this proposal should comply with, and they can be specific.

This is a large lot with multiple business in this industrial setting, so a dumpster enclosure doesn't look necessary, they will need garbage and possibly recycling services separate from the other business in the industrial park.

I do have some questions / concerns.

First, their project report; It appears to be a generic report, at least from my perspective is it does not address the Sedro Woolley site in regard to the byproducts they will produce and manage. It gives us general terms and conditions and has suggestions for management of those materials. (This is still not answered in Mr. Clarks rebuttal, most of his proposal is generic blanket information. We need to know what he is specifically doing with the dangerous waste he will be producing at this location and what wastes he will be producing and how will the waste be stored; how much will be stored on site and the specific location of stored materials. See below for WAC rules)

According to the state of Washington WAC codes, All businesses must comply with Chapter 173-303 WAC, Dangerous waste regulations when they operate in Washington State. Even if they are claiming that they will recycle/reuse much of their hazardous materials, there are always some wastes and sludges that are produced that designate as dangerous wastes per WAC 173-303. If they meet the conditionally exempt small quantity generator (CESQG) status as outlined in WAC 173-303, part of those conditions is they have to follow the regulations and have record keeping to demonstrate they are properly handling and disposing of their wastes. If a business is a CESQG, they are still regulated under solid waste regulations as an CESQG. Our local Skagit County Code SCC 12.16.220 and 12.16.240 cover more details for how CESQG businesses have the meet the regulations.

I would say they at a minimum they need to address those codes before we go any further in the process.

They also mention 40 CFR 261.2 for a reference to be exempt from solid waste. (When materials meet the below listed criteria per USEPA, they may be exempt from the definition of "solid waste" (40 CFR 261.2) and therefore cannot be hazardous wastes. Materials are not a solid waste when recycled by being:)

WA state has more restrictive definitions for Solid Waste materials so I would like to see them use the state RCWs for reference. How will they comply with moderate risk or hazardous waste rules with the state RCWs? I know they have a facility in Arlington WA. So, it would be nice to know how they are complying with existing rules in that city. A copy of their reports or a letter of how they handle their materials, may suffice. **This question is mostly answered; however, they need to show how they will comply with the above WAC codes.**

They say they may be reusing some of the byproducts while other byproducts will be stored on site to be sold to other industries for other uses and I have no objection to that. However, I do feel they should provide a report of where their stuff goes and how it was recycled or reused. **In his proposal he uses words such as should and some facilities. It does not say his facility in Sedro Woolley will follow what he is proposing.**

If they already provide a report to ecology, that same report should be sent to the city, for the Sedro Woolley site separately. **As outlined in WAC 173-303, part of those conditions is they have to follow the regulations and have record keeping to demonstrate they are properly handling and disposing of their wastes.**

My suggestion is the generator will need to assure us that there is not a huge buildup of byproduct waste on site, I would believe there should be some parameters on amounts on the site. I would add that we should know what the maximum amount of waste, that they will keep on site at any given time. Do we need to set the amount? **[This question still has not been answered, as a condition of their permit they should put the maximum amount of waste they will have on site.]**

Follow up on the SEPA checklist after reviewing Mr. Clarks proposal again. The ecology comment letter attached refers to stormwater not dangerous or hazardous waste he will be storing on site before it gets shipped off. And it does not address **how those materials will be stored on site or how much will be stored on site.**

a) In Mr. Clarks proposal uses words such as should, some facilities and may. It does not say his facility in Sedro Woolley will follow what he is proposing. Mr. Clark needs to have his proposal say they will follow the guidelines. And correct the wording in his proposal I highlighted them in yellow on the next page.

b) WAC codes mostly follow the federal lead, but they do not supersede them. In actuality the WAC codes supersede federal codes. Chapter 173-303 WAC, Dangerous waste regulations when they operate in Washington State. It is not on the city to provide information on how the business should comply it is on the business to show how they will comply and follow the codes and rules.

c) Thank you for this answer and I agree that you may be called an SQG. That said we need to know the maximum amount of waste, byproducts, recyclable materials you will have on site before you ship them off. That is well within the rules of a conditional use permit.

d) After reading Mr. Clark proposal again, it clearly states. Quote from the proposal: **These materials should be tracked from your facility to its final destination to ensure safe handling for human health and the environment. It is the galvanizer's legal responsibility to make sure the material leaving the facility is handled, treated, and stored properly.**

He is stating that he should do this but in his answer in rebuttal letter d) he says he should not have to do that? I believe that as a conditional use permit, He must be required to track all the materials coming from the site to their destination.

e) This answer does not refer to a question what is it referring to?

Commented [DP1]: As a CESQG they cannot accumulate more than 2200 lbs of dangerous waste or 2.2 pounds of extremely dangerous waste.

Commented [DP2]: Any hazardous materials must be stored per SCC 12.16.210 and WAC 173-303, i.e. proper container for waste type, secondary containment, under cover, etc.

Commented [DP3]: It sounds like he is referring to "cradle to grave" which is a federal RCRA requirement for any generator of hazardous wastes. It's also required by WAC 173-303.

2. Most concerns and issues from Leo Jacobs can be found above (Ecology Comment Letter). Further, we will follow up with a completed Hazardous Materials Inventory Statement (HMIS).
- Section 7 (Pages 14 – 17) of the report submitted to the City in September 2022, clearly addresses the comments surrounding byproducts. Highly recommend reviewing this section.
 - 40 CFR 261.2 is per the United States Environmental Protection Agency (USEPA). This should supersede WA State RCWs. If not, please provide content and codes that we must meet and provide WA State RCWs.
 - We will be considered as a "Small Quantity Generator" (SQG). As per USPEA, "Small Quantity Generators" generate more than 100 kilograms, but less than 1,000 kilograms of hazardous waste per month." Therefore, it is not determined by us or the City as to who "sets the amount." You can find more information on SQGs in the USEPS website: (www.epa.gov/hwgenerators/categories-hazardous-waste-generators).
 - Majority of the byproducts will be recycled back into the galvanizing process by the facility. From time to time, we will sell byproducts to Metal Brokerage organizations. They will then send the products for recycling overseas. This is all depicted in "EPA Form R." Form R does not require explanation further than who it is being sold to. The City of Sedro Woolley's ask to explain the process after the byproducts have been sold is over and beyond what regulations are. If this information is not adequate, we request that the City provide the proper code and regulations stating that we must provide this information.
 - None will be provided as both facilities operate separately.

Commented [DP4]: b): WAC 173-303-016 describes how to identify solid waste.
 c): If they are generating between 100 and 1000 kg per month, they are considered a MQG per WAC 173-303 (same criteria as what the EPA refers to as an SQG). This would require them to register with Department of Ecology and EPA. Ecology would regulate their hazardous waste practices.

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7 Managing Byproducts from the HDG Process

The surface preparation of steel prior to immersion in molten zinc is important for producing hot-dip galvanized coatings. Each pre-treatment chemical solution requires rebalancing as iron and contaminants increase in concentration. When these chemical solutions are no longer effective, they will need to be disposed, recycled, or reused. The materials removed from the process that hold value in other processes or markets may be transferred as beneficial reuse or sold. These materials should be tracked from your facility to its final destination to ensure safe handling for human health and the environment. It is the galvanizer's legal responsibility to make sure the material leaving the facility is handled, treated, and stored properly.

The following materials are used or produced in the galvanizing process and either recycled or reused back in the galvanizing process or sold to another industry as a raw material ingredient.

- Metal Scrap – Chain/Wire/Steel (fixtures)
- Process Rinse Waters – caustic, acid, quench
- Ferrous sulfate heptahydrate
- Ferrous chloride solution
- Hot-dip galvanizing skimming's
- Hot-dip galvanizing dross

Some of the hot-dip galvanizing facilities have processes that manufacture a secondary material that may be handled as a commercial chemical product. The systems removing iron from acid produce ferrous chloride solution or ferrous sulfate heptahydrate crystals that are often sold for commercial use and components of animal feed, fertilizer, and water treatment chemicals. Hot-dip galvanizing facilities with kettles produce hot-dip

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galvanizing skimmings when zinc ammonium chloride flux burns off pretreated steel. These skimmings contain zinc, zinc oxides, and zinc chlorides and are collected for sale to zinc brokers and zinc producers. The hot dip galvanizing bottom dross contains a combination of zinc/iron intermetallic alloys and free zinc and is removed from the kettle and sold to zinc brokers and zinc producers. Both materials are typically used as a feedstock material for zinc metal production and are excluded from the RCRA definition when recycled or reused.

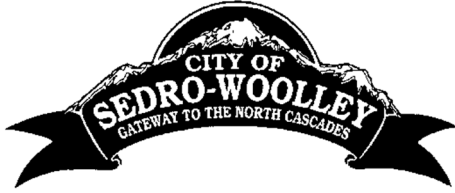
Some facilities have a Metallurgical Zinc Recovery (MZR) unit to recover the zinc metal and metal alloys from the hot-dip galvanizing skimmings and floor sweepings. The MZR is a thermo-mechanical device that separates the free zinc from the process and the skimmings. Facilities using MZR units to recover the metal content from the skimmings typically either sell the solid material or discard remaining material as nonhazardous solid waste. The recovered melted zinc metal can be reintroduced directly into the galvanizing kettle.

Ferrous chloride and caustic solutions are not considered wastes when sold to be used or reused as effective substitutes for commercial chemical products. These solutions are often shipped as hazardous material commercial products for use in wastewater treatment, zinc manufacturing, oil cracking processes, or other chemical processes.

Water quench solutions after the galvanizing kettle are typically not disposed. Water is added to replace the evaporated amount. Solids (dirt, oils, iron, and chemical precipitate) gradually accumulate at the bottom of process solution tanks.

When the solid material is removed from the water quench solution, it is typically shipped offsite for reuse in zinc production or disposed offsite as a nonhazardous or hazardous waste. Facilities with chromate or water quench solutions accumulate zinc which settles to the bottom. This zinc may continue to be used in the plant for galvanizing, shipped offsite

for use by the zinc producers, or disposed as a solid waste. This material may be a hazardous waste that is corrosive and/or toxic. All solids leaving the process as waste **should be** analyzed for RCRA metals by TCLP and characterized before shipment.



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David E. Lee, P.E.
City Engineer

January 10, 2023

Proposed Hot-Dip Galvanizing Facility
616 Sunset Park Drive
Seattle Galvanizing
CUP 2022-274
City of Sedro-Woolley
Engineering Department Conditional Use Permit Comments

1. In response to DOE comments regarding obtaining a DOE NPDES Industrial Stormwater General Permit, applicant states that the project will qualify for DOE Conditional Certificate of No Exposure. Applicant will need to complete appropriate request form and submit to Ecology. Applicant to provide the City with a copy of the request and any DOE responses. If No Exposure is granted, provide City with copy of certificate or approval.
2. Stormwater from the site does discharge into storm drainage systems that discharge to Brickyard Creek. Given the potential for zinc contamination in stormwater, appropriate Enhanced Water Quality treatment of site runoff will be required prior to discharging from the site.

Sincerely,

David Lee, PE
City Engineer

Nicole McGowan

From: Dale Patrick <dpatrick@co.skagit.wa.us>
Sent: Thursday, January 12, 2023 8:02 AM
To: Leo Jacobs; Nicole McGowan; Frank Wagner; Jerry Gardner; Kevin Wynn; David Lee
Cc: John Coleman
Subject: RE: Seattle Galvanizing (CUP-2022-274) - Transmit to Local Depts. 2
Attachments: Comment updated Seattle Galvanizing SCPH.docx

CAUTION: This email originated from outside of the City of Sedro-Woolley mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Leo,

I've provided some comments in the attachment. Without having seen the entire proposal, it seems like they are saying they will be generating more than 100kg of dangerous waste per month. If that is the case, then they are required to register with Ecology, who directly regulates Medium and Large Quantity Generators. Regardless, all generators of dangerous wastes in the county have to meet the requirements in SCC 12.16.210. I've also linked to a [waste designation guide from Ecology](#) that we routinely use with businesses that may be helpful in this situation.

There may also be confusion with some of this because what the EPA calls a SQG, the state and county calls a MQG. The criteria are identical. Further confusion may come from terms for a CESQG (county), SQG (state), and XSQG (EPA). These 3 terms are also the same criteria for businesses that generate less than 100 kg per month. Clear as mud?

Let me know if you have any questions on my comments.

Thanks,

Dale Patrick, REHS, GIT

My incoming and outgoing communications are subject to public disclosure laws per RCW 42.56

From: Leo Jacobs <ljacobs@Sedro-Woolley.gov>
Sent: Wednesday, January 11, 2023 2:46 PM
To: Nicole McGowan <nmcgowan@Sedro-Woolley.gov>; Frank Wagner <fwagner@Sedro-Woolley.gov>; Jerry Gardner <jgardner@Sedro-Woolley.gov>; Kevin Wynn <kwynn@Sedro-Woolley.gov>; David Lee <dlee@Sedro-Woolley.gov>
Cc: John Coleman <jcoleman@Sedro-Woolley.gov>; Dale Patrick <dpatrick@co.skagit.wa.us>
Subject: RE: Seattle Galvanizing (CUP-2022-274) - Transmit to Local Depts. 2

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Mine is attached to the email.

I would strongly suggest we send this proposal, to the Skagit County Health. Dale Patrick dpatrick@co.skagit.wa.us

Thank You

Leo

Nicole McGowan

From: Graham, Sylvia L. (ECY) <sygr461@ECY.WA.GOV>
Sent: Monday, January 9, 2023 2:37 PM
To: Nicole McGowan; Kevin Wynn
Cc: John Coleman; Hoffman, Maia (ECY)
Subject: RE: Seattle Galvanizing (CUP-2022-274) - Ecology Comment Response

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: This email originated from outside of the City of Sedro-Woolley mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Nicole,

Thank you for sending the response letter from Seattle Galvanizing dated 12/22/2022.

Item #1 in the response letter does not satisfy the Ecology comment on the requirement of an Industrial Stormwater General Permit. The letter states the facility "will qualify" for Ecology's Conditional Certificate of No Exposure; however, in order to qualify for the Conditional No Exposure Exemption, the facility MUST APPLY for an exemption. The facility must submit an electronic application through Ecology's Water Quality Permitting Portal (WQWebPortal). The application includes eleven questions that must be answered and certified. Within 90 days from receipt of a complete and accurate No Exposure Certification Form, Ecology will inform the applicant in writing or electronically that it has approved or denied the request. Application instructions for the Conditional No Exposure Exemption are here: <https://ecology.wa.gov/Asset-Collections/Doc-Assets/Water-quality/Water-Quality-Permits/Industrial-Stormwater/CNE-Focus-Sheet>

Item #2 does satisfy the Ecology comment regarding process wastewater and no further response is needed.

Please let me know if you have any questions.

Thank you,
Sylvia

Sylvia Graham (she/her)
Water Quality Specialist
Washington State Department of Ecology
Bellingham Field Office
360-927-4900 (cell)
My work hours: Tue-Fri 6:30am-5pm

From: Nicole McGowan <nmcgowan@Sedro-Woolley.gov>
Sent: Thursday, January 5, 2023 4:58 PM
To: Graham, Sylvia L. (ECY) <sygr461@ECY.WA.GOV>; Hoffman, Maia (ECY) <MHOF461@ECY.WA.GOV>; Kevin Wynn <kwynn@Sedro-Woolley.gov>
Cc: John Coleman <jcoleman@Sedro-Woolley.gov>
Subject: RE: Seattle Galvanizing (CUP-2022-274) - Ecology Comment Response