**Document Review Checklist**

**Rulemaking Name: Pacific Cast Technologies, Inc. Delisting 2019 (formerly ATI Delisting 2019)**

**Document Name: EQC Staff Report**

Every document that will be shared with anyone outside of DEQ staff must go through management review. This includes reports and PowerPoint presentations.

All documents must be reviewed and approved by the Program Manager, Communications, and either the Agency Rules Coordinator or the Air Quality Rules Coordinator.

The Notice of Rulemaking and EQC Staff Report must also be reviewed and approved by the relevant Division Administrator.

You do not need to use this checklist for routine editing. You should use this checklist whenever a required reviewer is completing their required review and approving the document for distribution.

Each required reviewer should add their name and the date when they complete their final review and approve the document for distribution.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Reviewer** | **Name** | **Date** | **Date** | **Date** |
| Program Mgr |  |  |  |  |
| Communications |  |  |  |  |
| DA |  |  |  |  |
| ARC or AQRC |  |  |  |  |
| Other |  |  |  |  |
| Other |  |  |  |  |
| Other |  |  |  |  |

Oregon Department of Environmental Quality

ENTER EQC MEETING DATE mm dd, yyyy

Oregon Environmental Quality Commission Meeting

Agency Staff Report

Rulemaking Action Item No. XX

**Pacific Cast Technologies, Inc. Delisting 2019**

## Table of Contents

[DEQ recommendation to the EQC 3](#_Toc490121542)

[Overview 4](#_Toc490121543)

[Optional Additional Topic from Notice 5](#_Toc490121544)

[Statement of Need 6](#_Toc490121545)

[Rules affected, authorities, supporting documents 7](#_Toc490121546)

[Fee Analysis 8](#_Toc490121547)

[Statement of fiscal and economic impact 9](#_Toc490121548)

[Federal relationship 10](#_Toc490121549)

[Land Use 11](#_Toc490121550)

[Advisory Committee 12](#_Toc490121551)

[Public Hearings 13](#_Toc490121552)

[Summary of comments and DEQ responses 14](#_Toc490121553)

[Commenters 17](#_Toc490121554)

[Implementation 18](#_Toc490121555)

[Five-year review 20](#_Toc490121556)

[Draft Rules – With Edits Highlighted 22](#_Toc490121557)

[Draft Rules – With Edits Included 23](#_Toc490121558)

[Supporting Documents 24](#_Toc490121559)

|  |
| --- |
| Accessibility Information |

The Oregon Department of Environmental Quality can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.

|  |
| --- |
| DEQ Recommendation to the EQC  |

Based on DEQ’s technical review of Pacific Cast Technologies, Inc.’s petition and the results of the delisting risk assessment data in the sampling and analysis results, DEQ recommends that the Environmental Quality Commission adopt the proposed rules in Attachment A as part of Chapter 340 of the Oregon Administrative Rules.

|  |
| --- |
| Overview  |

**REVIEWERS do not edit or modify this section**

 Management reviewed and edited this section. It was then published with the Public Notice. Do not modify it except to correct typographical errors.

**Background**

In April 2019, Pacific Cast Technologies, Inc., doing business as ATI Cast Products (ATI), submitted a petition for a F006 Delisting Rulemaking to DEQ. Following DEQ’s July 15, 2019 Public Notice for this proposed rulemaking, ATI Cast Products completed the sale of its titanium-alloy casting and machine parts unit to Consolidated Precision Products Corps. (CPP), doing business as Pacific Cast Technologies, Inc. While the facility has changed ownership, the production process and waste described in the April 2019 rulemaking remains the same.

Pacific Cast Technologies, Inc. manufactures titanium-alloy castings and machine parts for the aerospace industry using an electroplating process known as chemical etching and milling.

Chemical etching and milling uses chemical solutions to dissolve metal layers. The U.S. Environmental Protection Agency defines wastewater treatment sludge from electroplating operations, including chemical etching and milling, as an F006-listed hazardous waste. Chemicals commonly associated with this process include cadmium, chromium, nickel and complexed cyanides. When it is improperly managed, wastewater treatment sludge from chemical etching and milling processes has the potential to significantly contribute to an increase in mortality, serious injury, or environmental harm.

This rulemaking concerns a material called “wastewater treatment sludge from electroplating operations.” For ease of reading and understanding, from this point on, this document will refer to that material as “sludge.”

Historically, Pacific cast Technologies, Inc. managed sludge as a non-hazardous industrial waste at a permitted landfill. However, in 2017, DEQ conducted an updated review of chemical etching and milling operations at titanium-casting facilities in Oregon. DEQ then notified Pacific Cast Technologies, Inc. that it should handle its sludge as listed F006 hazardous waste.

EPA authorizes the state of Oregon to manage its hazardous waste program under the Resource Conservation and Recovery Act. EPA also authorizes Oregon to stop categorizing specific substances as hazardous waste in Oregon when specific conditions are met. This process is called “delisting.”

A petitioner who wants DEQ to delist a hazardous waste must comply with 40 C.F.R. sections 260.20 and 260.22, incorporated by reference in OAR 340-100-0020 and -0022. The petition must show the waste does not contain the chemicals for which EPA originally listed the waste in concentrations above appropriate risk-based standards. The risk-based evaluation must also determine that factors, including additional constituents other than those for which the waste was listed, do not warrant retaining the waste as a hazardous waste. In addition, the waste must not be ignitable, reactive, corrosive, or toxic.

In April 2019, Pacific Cast Technologies, Inc. petitioned DEQ to exclude sludge from the F006 listing. This delisting petition includes sludge generated by Pacific Cast Technologies, Inc.’s production of titanium-alloy cast parts for the aerospace industry. If adopted, the Pacific Cast Technologies, Inc Delisting 2019 rulemaking will be the second hazardous waste delisting in Oregon.

In November 2018, the Oregon Environmental Quality Commission adopted the state’s first rulemaking to delist a hazardous waste. DEQ concluded F006 chemical etching and milling wastewater treatment sludge produced by Selmet, Inc., in Albany, Oregon is excluded from listing as hazardous waste provided Selmet meets specified conditions described in OAR 340-101-0004.

**DEQ proposal**

DEQ proposes delisting the specific waste that is the subject of Pacific Cast Technologies, Inc.’s petition. This action is justified based on our review of the sampling and analysis results and the delisting petition SLR International Corporation prepared for Pacific Cast Technologies, Inc. DEQ proposes amending Oregon’s hazardous waste regulations in Chapter 340, Division 101, of the Oregon Administrative Rules to delist Pacific Cast Technologies, Inc.’s F006 hazardous waste. DEQ is taking this action under the following authorities:

* 50 Federal Register 52629, Oct. 10, 1995 (EPA authority for Oregon to operate hazardous waste program)
* 40 CFR Sections 260.20 and 260.22 (authority for petitions to delist a substance), incorporated by reference in OAR 340-100-0020 and -0022
* ORS 466.075(3) (authority to exempt substances from hazardous waste requirements)
* OAR 340-100-0020, -0022 (authority to petition for exclusion)

**Who does this affect?**

This proposal affects only Pacific Cast Technologies, Inc. and is specific to the waste generated by Pacific Cast Technologies, Inc.’s Albany, OR 150 Queen Avenue SW facility.

|  |
| --- |
| Optional Additional Topic  |

**REVIEWERS do not edit or modify this section**

 Management reviewed and edited this section. It was then published with the Public Notice. Do not modify it except to correct typographical errors.

**Waste Analysis and Risk Screening**

Before testing Pacific Cast Technologies, Inc.’s chemical etching and milling sludge, DEQ worked with Pacific Cast Technologies, Inc. and its contractor, SLR, to review the materials used in all stages of the titanium casting process. DEQ also worked with Pacific Cast Technologies, Inc. to identify a sampling and analysis plan for sludge. DEQ staff approved Pacific Cast Technologies, Inc.’s sampling and analysis plan in February 2019.

**Parameters for Analysis**

Based on DEQ’s review of chemicals used in the titanium casting process, SLR analyzed Pacific Cast Technologies, Inc’s sludge for cadmium, hexavalent chromium, cyanide, and nickel, the chemicals for which EPA lists F006 as a hazardous waste. SLR also analyzed Pacific Cast Technologies, Inc.’s sludge for additional toxic chemicals that might be present in the waste—total chromium, manganese, molybdenum, silver, vanadium, zirconium and fluoride.

**Screening Criteria**

Pacific Cast Technologies, Inc. is requesting permission to dispose of up to 9,000 cubic yards of sludge per year. This volume accounts for current activities, approximately 1,800 yards per year, and potential future business growth.

Sludge samples are screened against concentrations of hazardous chemicals derived from EPA’s Delisting Risk Assessment Software. The software uses knowledge of the volume of waste and final disposition along with toxicity information to determine an acceptable concentration for the waste to go to a permitted, non-hazardous landfill.

Calculations are targeted to a carcinogenic risk not to exceed one in a million excess cancer and a non-carcinogenic hazard index of one. This is similar to other DEQ Land Quality programs using risk-based screening levels. The screening process uses the most conservative screening levels the software calculates for both total concentrations and Toxicity Characteristic Leaching Procedure concentrations.

**Sampling and Analysis**

As the RCRA Waste Sampling Draft Technical Guidance specifies, SLR used random unbiased composite sampling techniques to sample Pacific Cast Technologies, Inc.’s sludge. SLR collected four composite sampling events from the sludge approximately one week apart on Feb. 14, Feb. 20, March 1 and March 7, 2019, to represent unique periods of sludge generation.

For each sampling event, SLR drew a grid dividing the sludge into a schematic of numbered squares and random numbers. SLR used this grid to select five squares to composite for one analytical sample. For one of the sampling events, SLR collected two unique composite samples from the same waste bin to verify consistent results.

SLR composited and collected samples in appropriate sample containers for each analysis, placed the samples on ice, and shipped them to analytical laboratories. Pace Analytical did most analytical work and Specialty Analytical did additional analysis. The Oregon Environmental Laboratory Accreditation Program certifies both labs.

SLR measured sludge composite samples for:

* Metals (cadmium, total chromium, manganese, molybdenum, nickel, silver, vanadium) by EPA test method 6010B
* Zirconium by method 6020D
* Cyanide by method 9012B
* Fluoride by method 9056A
* Hexavalent chromium by method 7196A

**Results and Risk Screening**

The software provides screening levels for total concentrations of chemicals and concentrations that may leach into soil and water. Pacific Cast Technologies, Inc.’s sludge is below the allowable concentrations of toxic metals, fluoride, and cyanide (Table 1).

DEQ agrees Pacific Cast Technologies, Inc.’s sludge is not ignitable, reactive, toxic or corrosive. Therefore, DEQ concludes it does not require handling as hazardous waste and Pacific Cast Technologies, Inc. may dispose of sludge in a permitted, non-hazardous Subtitle D landfill.

**Recommendation**

Based on DEQ’s technical review of Pacific Cast Technologies, Inc.’s petition and the results of the delisting risk assessment data in the sampling and analysis results, DEQ recommends that the Environmental Quality Commission adopt the proposed rules in Attachment A as part of Chapter 340 of the Oregon Administrative Rules excluding Pacific Cast Technologies, Inc.’s waste from classification as a F006 hazardous waste.

|  |
| --- |
| Statement of Need  |

**REVIEWERS do not edit or modify this section**

 Management reviewed and edited this section. It was then published with the Public Notice. Do not modify it except to correct typographical errors.

#### What need would the proposed rule address?

Pacific Cast Technologies, Inc. is currently managing its chemical etching and milling wastewater treatment sludge as F006 listed hazardous waste. It is costly for Pacific Cast Technologies, Inc. to manage the waste this way. Through the delisting petition, Pacific Cast Technologies, Inc. has demonstrated the waste can safely go to a permitted, non-hazardous Subtitle D landfill. This will also allow Pacific Cast Technologies, Inc.to use a nearby landfill rather than trucking the waste approximately 200 miles to a hazardous waste landfill.

#### How would the proposed rule address the need?

If the Oregon Environmental Commission approves the delisting rulemaking, Pacific Cast Technologies, Inc. can manage the sludge as non-hazardous industrial waste, significantly reducing management and disposal costs.

#### How will DEQ know the rule addressed the need?

DEQ will know when Pacific Cast Technologies, Inc.no longer manages the sludge as hazardous waste because it will no longer list the waste on its annual hazardous waste management report.

|  |
| --- |
| Rules Affected, Authorities, Supporting Documents  |

**REVIEWERS do not edit or modify this section**

 Management reviewed and edited this section. It was then published with the Public Notice. Do not modify it except to correct typographical errors.

#### Lead division

Land Quality

#### Program or activity

Hazardous Waste Program

#### Chapter 340 action

|  |
| --- |
| **Rules Amended – OAR 340** |
| 340-101-0004 |  |  |  |  |
|  |  |  |  |  |
| **Statutory Authority - ORS** |
| 466.020 and 466.180 |  |  |  |  |

|  |
| --- |
| **Statutes Implemented - ORS** |
| 466.015 and 466.195 |  |  |  |  |

### Documents relied on for rulemaking

|  |  |
| --- | --- |
| Document title | Document location |
| Delisting Petition: #DP-2019-001 | DEQ-HQ-HW Program700 NE Multnomah Street, Suite 600Portland, OR 97232-1400 |
| Delisting Risk Assessment Software |  <https://www.epa.gov/hw/hazardous-waste-delisting-risk-assessment-software-dras>  |

|  |
| --- |
| Fee Analysis  |

**REVIEWERS do not edit or modify this section**

 Management reviewed and edited this section. It was then published with the Public Notice. Do not modify it except to correct typographical errors.

This rulemaking does not involve fees.

|  |
| --- |
| **Statement of Fiscal and Economic Impact** |

**REVIEWERS do not edit or modify this section**

 Management reviewed and edited this section. It was then published with the Public Notice. Do not modify it except to correct typographical errors.

## Fiscal and Economic Impact

Following delisting, DEQ will no longer require Pacific Cast Technologies, Inc. to pay hazardous waste management fees for its F006 listed hazardous waste. However, DEQ will continue to inspect Pacific Cast Technologies, Inc. and offer compliance assistance.

Pacific Cast Technologies, Inc. will receive positive fiscal benefits. Since June 2017, Pacific Cast Technologies, Inc. has managed its chemical-etching and milling sludge as a F006 hazardous waste at an approximate annual cost of $250,000. If the Oregon Environmental Quality Commission adopts the proposed rule amendments, Pacific Cast Technologies, Inc. will pay less to handle and dispose of the materials that are the subject of this rulemaking.

## Statement of Cost of Compliance

State agencies

The proposed rule will reduce revenue for DEQ’s hazardous waste program. DEQ will no longer require the specific facility these rules affect to pay fees for hazardous waste disposal. In addition, DEQ will receive less fee revenue from the treatment, storage and disposal facility that is currently receiving the hazardous waste.

### Local governments

DEQ anticipates there will be no fiscal or economic impact to local governments, as the rule impacts only one specific facility.

### Public

DEQ anticipates there will be no fiscal or economic impact to the general public.

### Large businesses - businesses with more than 50 employees

DEQ anticipates there will be a fiscal or economic impact to one large business that currently receives the F006 hazardous waste for disposal. If EQC adopts the proposed rule amendments, ATI will reduce its costs in handling and disposal of the materials that are the subject of this rulemaking.

### Small businesses – businesses with 50 or fewer employees

#### a. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.

DEQ anticipates there will not be adverse impacts on small businesses.

#### **b. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule**.

These rule changes will not require any additional reporting, recordkeeping, or other administrative activities.

These rule changes will not require any additional reporting, recordkeeping or other administrative activities.These rule changes will not require any additional reporting, recordkeeping or other administrative activities.

#### c. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.

No additional equipment, supplies or labor is required to comply with these rules.

#### d. Describe how DEQ involved small businesses in developing this proposed rule.

DEQ did not involve small businesses in developing these proposed rules because the rules do not affect small businesses.

DEQ did not involve small businesses in developing these proposed rules because the rules do not affect small businesses.

## Documents relied on for fiscal and economic impact

|  |  |
| --- | --- |
| Document title | Document location |
| Delisting Petition: #DP-2019-001 | DEQ-HQ-HW Program700 NE Multnomah Street, Suite 600Portland, OR 97232-1400 |

## Advisory committee fiscal review

DEQ did not convene an advisory committee. The proposed rulemaking affects only one specific facility, does not affect any small businesses or the general public, and only has a fiscal impact on DEQ and the petitioner. There will be a public hearing and public comment period to gather public comments on the rulemaking.

## Housing cost

As Oregon Revised Statute 183.534 requires, DEQ evaluated whether the proposed rules affect the development cost of a 6,000-square-foot parcel and construction of a 1,200-square-foot detached, single-family dwelling on that parcel. DEQ determined the proposed rules would have no effect on the development costs because the proposed rules do not have any bearing on housing.

|  |
| --- |
| Federal Relationship  |

**REVIEWERS do not edit or modify this section**

 Management reviewed and edited this section. It was then published with the Public Notice. Do not modify it except to correct typographical errors.

### Relationship to federal requirements

ORS 183.332, 468A.327, and OAR 340-011-0029 require DEQ to attempt to adopt rules that correspond with existing equivalent federal laws and rules unless there are reasons not to do so.

In this case, there is no comparable federal requirement. The proposed rule amendments are not in addition to or different from federal requirements.

Under the state and federal rules cited above, the EPA authorizes DEQ to operate Oregon’s hazardous waste program. The EPA also authorizes Oregon to exempt substances from being classified as a listed hazardous substances in Oregon if a petitioner meets the requirements stated in the state and federal rules listed above. This action is consistent with, and DEQ is taking it, under the authority of, federal rules.

|  |
| --- |
| Land Use  |

**REVIEWERS do not edit or modify this section**

 Management reviewed and edited this section. It was then published with the Public Notice. Do not modify it except to correct typographical errors.

### Land-use considerations

In adopting new or amended rules, Oregon Revised Statute 197.180 and Oregon Administrative Rule 340-018-0070 require DEQ to determine whether the proposed rules significantly affect land use. If so, DEQ must explain how the proposed rules comply with state wide land-use planning goals and local acknowledged comprehensive plans.

Under Oregon Administrative Rules 660-030-0005 and 340 Division 18, DEQ considers that rules affect land use if:

* The statewide land use planning goals specifically refer to the rule or program, or
* The rule or program is reasonably expected to have significant effects on:
* Resources, objectives or areas identified in the statewide planning goals, or
* Present or future land uses identified in acknowledged comprehensive plans

DEQ determined whether the proposed rules involve programs or actions that affect land use by reviewing its Statewide Agency Coordination plan. The plan describes the programs that DEQ determined significantly affect land use. DEQ considers that its programs specifically relate to the following statewide goals:

|  |  |
| --- | --- |
| Goal | Title |
| 5 | Open Spaces, Scenic and Historic Areas, and Natural Resources |
| 6 | Air, Water and Land Resources Quality |
| 9 | Ocean Resources |
| 11 | Public Facilities and Services |
| 16 | Estuarial Resources |

Statewide goals also specifically reference the following DEQ programs:

* Nonpoint source discharge water quality program – Goal 16
* Water quality and sewage disposal systems – Goal 16
* Water quality permits and oil spill regulations – Goal 19

### Determination

DEQ determined that these proposed rules do not affectland use under Oregon Administrative Rule 340-018-0030 or DEQ’s State Agency Coordination Program.

|  |
| --- |
| EQC Prior Involvement  |

DEQ did not present additional information specific to this proposed rule revision.

|  |
| --- |
| Public Engagement  |

### Public notice

DEQ provided notice of the proposed rulemaking and rulemaking hearing on July 15, 2019, by:

* Filing notice with the Oregon Secretary of State for publication in the Aug. 1, 2019 Oregon Bulletin
* Notifying EPA by mail
* Posting the Notice of Rulemaking and draft rules on the webpage for this rulemaking, located at: [ATI Delisting Rulemaking](https://www.oregon.gov/deq/Regulations/rulemaking/Pages/Rati2019.aspx)
* Emailing 11,493 interested parties on the following DEQ lists through GovDelivery:
* Rulemaking
* Hazardous Waste
* Emailing the following key legislators required under [ORS 183.335](http://www.leg.state.or.us/ors/183.html):
* Senator Michael Dembrow, Chair, Senate Committee on Environment and Natural Resources
* Senator Alan Olsen, Vice Chari, Senate Committee on Environment and Natural Resources
* Representative Ken Helm, Chair, House Committee on Energy and Environment
* Representative E. Werner Reschke, Vice-Chair, House Committee on Energy and Environment
* Representative Sheri Schouten, Vice-Chair, House Committee on Energy and Environment
* Posting on the DEQ event calendar: [DEQ Calendar](http://www.oregon.gov/deq/Get-Involved/Pages/Calendar.aspx)
* Publishing notice in the following newspaper: *The Albany Democrat Herald*, July 15, 2019.

|  |
| --- |
| Public Hearing  |

DEQ held one public hearing. DEQ received no comments at the hearing. Later sections of this document include a summary of the four comments received during the open public comment period, DEQ’s responses, and a list of the commenters. Original comments are on file with DEQ.

## Presiding Officers’ Record

### Hearing 1

|  |  |
| --- | --- |
| Date | Aug. 19, 2019 |
| Place | Linn-Benton Community College, 6500 Southwest Pacific Blvd. |
| Start Time | 6 p.m. |
| Ending Time | 7 p.m. |
| Presiding Officer | Eileen Naples |

Date: Aug. 19, 2019

Place: Linn-Benton Community College, 6500 Southwest Pacific Blvd.

Start Time: 6 p.m.

Ending Time: 7 p.m.

Presiding Officer: Eileen Naples

The presiding officer convened the hearing, summarized procedures for the hearing, and explained that DEQ was recording the hearing. The presiding officer asked people who wanted to present verbal comments to sign the registration list, or if attending by phone, to indicate their intent to present comments. The presiding officer advised all attending parties interested in receiving future information about the rulemaking to sign up for GovDelivery email notices.

As Oregon Administrative Rule 137-001-0030 requires, the presiding officer summarized the content of the rulemaking notice.

Four people attended the hearing in person and no people attended by teleconference. No person presented any oral or written comments at the hearing.

|  |
| --- |
| Summary of Public Comments and DEQ Responses |

#

## Public comment period

Following DEQ’s July 15, 2019 Public Notice for this proposed rulemaking, ATI completed the sale of its titanium-alloy casting and machine parts unit to Consolidated Precision Products Corps. (CPP), doing business as Pacific Cast Technologies, Inc.

## DEQ received four public comments during the July 15 to Aug. 20, 2019 public comment period. All four comments are included below and DEQ’s response follows the comments. DEQ did not change the proposed rules in response to comments.

## DEQ received one comment after the close of the public comment period at 4 p.m. on Aug. 20. DEQ did not accept this comment as part of the public record and did not respond to the comment.

**Comment 1 – Joshua Baker**

How about more information so the public can make informed comments. Here are some suggestions:

* Who is ATI?
* When their toxic waste was first listed as such?
* What has changed to warrant a de-listing of ATI’s toxic sludge?
* Where does ATI’s toxic sludge go when ATI has discharged it?
* What public benefit does de-listing ATI’s toxic sludge serve?

**Comment 2 – Liz**

I would like more information about the rulemaking and why this sludge was declassified as toxic.

What testing has been done to deem this non-toxic?

I would like more information on how this conclusion was reached. What made it toxic in the first place and what changed? Other than that the policy has changed, the toxic levels have not.

**Response 1**

The following response addresses both comment 1 and comment 2.

Hazardous waste can be “characteristic,” meaning the waste exhibits one of the four hazardous waste characteristics which include ignitability, corrosivity, reactivity, and toxicity. Hazardous waste can also be “listed,” meaning the waste is specifically named in the regulations because it is generally known to be hazardous waste. The subject of this rulemaking, F006, is a hazardous waste derived from a variety of industrial operations, including chemical etching and milling.

Before 2017, it was DEQ’s practice to consider chemical etching and milling wastewater treatment sludge (sludge) in facilities across the state to be non-hazardous because DEQ understood the sludge did not contain the chemicals F006 is listed for above risk-based concentrations. However, in 2017, DEQ re-examined this practice and made the decision to make the state position align with the US Environmental Protection Agency’s position that the sludge must be managed as F006 hazardous waste until facilities demonstrate through a petition and delisting rulemaking that their sludge is not hazardous. Now, facilities in Oregon that produce listed hazardous waste have the opportunity to petition DEQ to exclude, or “delist” their sludge.

Pacific Cast Technologies, Inc. manufactures titanium-alloy castings and machine parts for the aerospace industry using an electroplating process known as chemical etching and milling. In April 2019, Pacific Cast Technologies, Inc. petitioned DEQ for a delisting of its F006 waste.

Pacific Cast Technologies, Inc. consulted with DEQ to review the materials that are currently used in all stages of the facility’s chemical etching and milling process and identify a sampling process for the resulting sludge. Based on this review, independent laboratories certified by the Oregon Environmental Laboratory Accreditation Program analyzed samples of Pacific Cast Technologies, Inc.’s sludge for: cadmium, chromium, cyanide, fluoride, hexavalent chromium, manganese, molybdenum, silver, nickel, vanadium, and zirconium.

To determine if Pacific Cast Technologies, Inc.’s sludge is safe to dispose in a permitted, non-hazardous landfill, DEQ compared sampling data to screening levels established by EPA’s delisting risk assessment software. This tool evaluates potential dangers to human health and the environment the sludge could case if it is disposed outside of a hazardous waste landfill. The tool considers the total volume of sludge, toxicity data for each chemical, potential exposure pathways, proposed disposal location, and risk levels chosen by the state.

Results of the results of the sampling, analysis and screening process showed that Pacific Cast Technologies, Inc.’s sludge does not exceed one-in-a-million excess cancer risk or a hazard index of one for human health receptors or ecological risk if it is disposed in a permitted, non-hazardous landfill.

The Pacific Cast Technologies, Inc. F006 delisting rulemaking applies only to the specific chemical etching and milling sludge identified in the 2019 delisting petition. This delisting does not apply to other facilities in Oregon.

DEQ encourages all Oregon businesses to responsibly manage hazardous waste by eliminating toxic waste and preventing pollution. Preventing waste and pollution makes sense for the economy and the environment.

**Comment 3 – KSS**

1. Were samples collected during peak production periods?
2. Five samples collected over such a short period do not provide a representative sample set.
3. What controls exist for the proper maintenance of the pretreatment system? DEQ should understand how pretreatment system failures may impact the quality of the dewatered material and require the facility to create a written plan for on-going evaluation of the pre-treatment system to ensure proper operation.
4. Was the Albany wastewater authority provided notice of this petition? Their review is imperative.

**Response**

**Comment 4 – AK Davis**

Does this pertain to all wastewater treatment sewage sludge, also known as treated sewage sludge, or biosolids?

**Response**

The following response addresses both comment 3 and comment 4.

DEQ worked with Pacific Cast Technologies, Inc. and its contractor, SLR, to review the materials used in all stages of the titanium casting process. DEQ also worked with Pacific Cast Technologies, Inc. to identify a sampling and analysis plan for sludge that results from this process. DEQ staff approved Pacific Cast Technologies, Inc.’s sampling and analysis plan in February 2019.

All wastewater from Pacific Cast Technologies, Inc.’s titanium casting process goes to a facility treatment system that produces two residues:

* One residue is water that is treated to meet water quality standards, ensure the protection of worker safety, the sewage treatment plant operations, biosolids and water quality. Following treatment, Pacific Cast Technologies, Inc. sends water to the city sewer.
* The second residue is waste sludge that is dewatered and disposed in a permitted landfill. The Pacific Cast Technologies, Inc., waste sampling and analysis plan and delisting petition addresses this residue.

As the RCRA Waste Sampling Draft Technical Guidance specifies, SLR used random unbiased composite sampling techniques to sample Pacific Cast Technologies, Inc.’s sludge. SLR collected four composite sampling events from the sludge approximately one week apart on Feb. 14, Feb. 20, March 1 and March 7, 2019, to represent unique periods of sludge generation. For each sampling event, SLR drew a grid dividing the sludge into a schematic of numbered squares and random numbers. SLR used this grid to select five squares to composite for one analytical sample. For one of the sampling events, SLR collected two unique composite samples from the same waste bin to verify consistent results.

Because Pacific Cast Technologies, Inc. must meet specific production requirements for their customers, their production process is consistent from week-to-week and four sampling events provides a representative sample of their sludge.

DEQs describes the sampling and analysis process for Pacific Cast Technologies, Inc.’s sludge in more detail in the ATI Delisting 2019 Public Notice, which DEQ made broadly available to the public through GovDelivery on July 15, 2019.

|  |
| --- |
| **Implementation**  |

## Notification

The proposed rules would become effective upon filing on approximately Nov. 18, 2019. DEQ would notify pacific Cast Technologies, Inc. via email if the EQC approves of this proposed F06 wastewater treatment sludge delisting and agrees with DEQ’s recommendation that it is safe to manage the material in a DEQ-approved permitted solid waste landfill.

Pacific Cast Technologies, Inc.’s F006 wastewater treatment sludge delisting will remain in effect only as long as Pacific Cast Technologies, Inc. maintains the same operating conditions generating the identified waste streams described in the delisting petition. If Pacific Cast Technologies, Inc. makes changes to the process, they must handle the waste generated after the process change as hazardous waste until DEQ is able to confirm in writing that the wastewater treatment sludge continues to meet the conditions described in the 2019 delisting. Pacific Cast Technologies, Inc. must also notify DEQ of this change within 30 days. Additionally, Pacific Cast Technologies, Inc. is required to test their wastewater treatment sludge annually to ensure the waste does not exceed the specified delisting concentrations.

|  |
| --- |
| Five-year review – Leave Blank – Will be Completed by Agency Rules Coordinator ORS 183.405 |

Requirement

Oregon law requires DEQ to review newrules within five years after EQC adopts them. The law also exempts some rules from review. DEQ determined whether the rules described in this report are subject to the five-year review. DEQ based its analysis on the law in effect when EQC adopted these rules.

## Exemption from five-year rule review

## The Administrative Procedures Act exempts the proposed rules from the five-year review because the proposed rule would amend or repeal an existing rule. ORS 183.405(4).

|  |
| --- |
| Draft Rules – With Edits Highlighted**LEAVE BLANK – AGENCY RULES COORDINATOR WILL ADD** |

|  |
| --- |
| Draft Rules – With Edits Included**LEAVE BLANK – AGENCY RULES COORDINATOR WILL ADD** |

|  |
| --- |
| Supporting Documents |