M E M O R A N D U M

DATE: September 27, 2011

TO: Richard D. Garrity, Ph.D.

FROM: Lora Webb **THRU**: Diana M. Lee, P.E.
Sterlin K. Woodard, P.E.

SUBJECT: Revised Draft Construction Permit – Chromalloy Castings Tampa Corporation Permit No. 0571408-002-AC

Attached is a Revised Draft Construction Permit No. 0571408-002-AC for Chromalloy Castings Tampa Corporation**,** a metal casting product manufacturing facility. This permit is being issued to reflect several changes that were made to the metal casting product manufacturing operation when the facility moved its operations from 7030 Anderson Road, Tampa, Fl to 3401 Queen Palm Dr., Tampa, FL. The changes in the operation include the following:

1) Authorize the use of an 11,000 ACFM AAT, Inc., Orion Model 11V-IS-P, Packed Bed Scrubber with mist eliminator to control emissions from the acid cleaning room instead of the 5,000 ACFM Vanaire, Model No. HF-150, Packed Bed Scrubber.
2) Authorize the use of nitric acid and phosphoric acid in the acid cleaning room and increase the material usage of all of the acids used in the acid cleaning room.
3) Clarify that melting of metal does not occur in the pre-heat ovens or in the heat treat ovens.
4) Reflect the use of fifty blasting cabinets to grit blast, sand, and buff the finished parts. The blasting cabinets will be vented to a maximum of thirty-one baghouses which exhaust inside a partially enclosed process area. This operation has been determined to be exempt from permitting.
5) Reflect that the facility is subject to 40 CFR 63 Subpart ZZZZZZ— National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries. Since the State has not adopted this Rule, the only reference to this federal regulation will be in the process description.

The Draft Permit was issued on July 5, 2011. On July 15, 2011, comments were received via email from Omana Antony Taylor, P.E. – ETG, Inc. on behalf of Chromalloy Castings Tampa Corporation. On

September 19, 2011, a Revised Draft Permit was emailed to the facility which addressed the comments received on July 15, 2011. On September 21, 2011, the facility submitted one additional comment via email. Listed below is each comment and a response to each in the order that the comment was received. The comment(s) will not be restated but are summarized. Where duplicative comments exist, the original response is referenced.

Comment No. 1: 40 CFR 63 Subpart ZZZZ is not applicable because the generator was manufactured February 29, 2000 and therefore was manufactured prior to the applicable date of April 2006. Chromalloy acquired the generator from a division that was closed in California.

Response: Based on the facility's response, the engine is exempt from 40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, since the engine was manufactured before April 1, 2006. Therefore, all references to 40 CFR 60 Subpart IIII are removed from the permit. Also, in regards to the NESHAP applicability, the engine which will be used as an emergency generator was installed in 2010 when this new facility was constructed. In accordance with 40 CFR 63.6590(a)(2)iii, a stationary RICE located at an area source of HAP emissions is a new stationary RICE if the facility commenced construction of the stationary RICE on or after June 12, 2006. Furthermore, 40 CFR 63.2 defines Construction as the on-site fabrication, erection, or installation of an affected source. Based on this information and after reviewing 40 CFR 63 Subpart ZZZZ, it does not appear that this rule is applicable to new emergency engines at area sources of HAP emissions because there are no limitations or restrictions for this type of engine within the Rule. Therefore, all references to this NESHAP are removed from the permit.

Comment No. 2: 40 CFR 63 Subpart ZZZZZ is not applicable since iron or steel is not the predominant metal in Chromalloy's metal melting process. Only one alloy out of the thirty alloys that Chromalloy uses has 18% iron and the rest are 2% or below. The predominant metal used in the casting that contains 18% iron is nickel at 52%. Please see the attached EPA guidance.

Response: The facility submitted an email from Conrad Chin of USEPA, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Metals and Inorganic Chemicals Group with the comments. EPA's determination submitted in 7/7/2011 email states the following:
An iron and steel foundry means a facility or portion of a facility that melts scrap, ingot, and/or other forms of iron and/or steel and pours the resulting molten metal into molds to produce final or near final shape products for introduction into commerce. Also, nonferrous metal means any pure metal other than iron or any metal alloy for which an element other than iron is its major constituent in percent by weight. As long as iron is not the most abundant metal in the casting process, the castings would be classified as nonferrous and are exempt from 40 CFR 63 Subpart ZZZZZ. If the casting that contains 18% iron contains at least 19% of another metal, then that casting would qualify as nonferrous casting. If there is a casting that iron makes up the majority metal constituent, then the "iron and steel facility" would be all operations associated with the melting and casting of that "iron/steel" casting.

Therefore, based on the email determination from Conrad Chin of USEPA and the metal composition provided by the facility, the facility is not subject to 40 CFR 63 Subpart ZZZZZ because the alloys used at the facility do not meet the definition of ferrous metal alloys. All of the references to 40 CFR 63 Subpart ZZZZZ are removed from the permit.

Comment No. 3: As stated in the permit application, the wax burn-off ovens are rated at 1.0 MMBtu/hr. One afterburner is rated at 0.75 MMBtu/hr and the other two are rated at 1.0 MMBtu/hr.

Response: In Section C. of the Application, Segment Information for EU No. 002 – Wax Burn-Off Ovens, it showed one of the afterburners as having a rating of 1.0 MMBtu/hr and two of the afterburners having a rating of 0.75 MMBtu/hr. However, based upon further review by Steve Misuraca of Chromalloy Castings, it was verified that the afterburner which controls two wax burn-off ovens is rated at 0.75 MMBtu/hr and the remaining two afterburners are each rated at 1.0 MMBtu/hr. Therefore, Paragraph 3 of the process description is revised to reflect the correct ratings of the afterburners.

Comment No. 4: 40 CFR 63 Subpart XXXXXX is not applicable because the SIC code and the NAIC code for Chromalloy is not in the listed categories in the rule. Please see attached EPA guidance.

Response: After further review of the Standard Industrial Classification Manual, it has been determined that the Major Group 37 Category (Transportation Equipment) is more applicable to Chromalloy's operations as opposed to the Major Group 39 Category, and therefore, the permit will be revised to reflect this new SIC number. In regards to the applicability of 40 CFR 63 Subpart XXXXXX, based on the information provided, it appears that this Rule does not apply to Chromalloy's operations. Therefore, all of the references to 40 CFR 63 Subpart XXXXXX are removed from the permit.

Comment No. 5: Please delete the density and VOC content limitation to the pattern wash used in the dip room. This restricts our business to using one product and takes away the operational flexibility that is required to succeed in today's market. As a very small source of VOC's, we recommend language to restrict our facility wide VOC's to below 10 TPY and keep the existing usage limits. Records of usage and calculations will be kept to demonstrate compliance.

Also, Specific Condition No. 9.E) h lists the Fluorescent Penetrant restrictions. We request that any reference to the penetrant be deleted from the permit since it is not a VOC or HAP source. Additionally, it is used in very small quantities. If EPC must list the solvent wash in the permit, we request that any product specific reference be deleted from the permit as well as the specific density requirement.

Response: In order to allow the facility operational flexibility, the material usage limitations, the density, and the VOC content of the materials used in the dip tank and the fluorescent penetrant process are removed from the technical evaluation and Specific Condition Nos. 9.A) and 9.E) h. However, in order to provide reasonable assurance that the requested VOC emissions limitation of 10 TPY will not be exceeded, Specific Condition No. 5. is changed to limit the VOC emissions of dip tank and the fluorescent penetrant process to 10 TPY of VOCs. In addition, Specific Condition No. 17 is revised as follows to require the facility to calculate VOC emissions from the dip tank and the fluorescent penetrant process on a monthly basis.

From:

5. As requested by the permittee, in order to limit the potential to emit and establish the facility as a synthetic minor for both criteria and Hazardous Air Pollutants (HAP), the following emission limitations shall apply per any 12 consecutive month period: [Rules 62-4.070(3) and 62-210.200, F.A.C. and Construction Permit Application Received April 20, 2011]

A) The allowable particulate matter emissions from each baghouse associated with EU No. 004 shall not exceed 0.03 grains/DSCF.
B) The HAP, as defined in Rule 62-210.200, F.A.C., emissions shall be less than 10 tons for any individual HAP and less than 25 tons for any combination of HAPs.

9. The following restrictions and limitations shall apply for any 12 consecutive month period in order to ensure compliance with Specific Condition Nos. 5, 6, and 8: [Rule 62-4.070(3), F.A.C. and Construction Permit Application Received April 20, 2011]

A) Dip tank (Emission Unit No. 001)
   a. The maximum material usage of the VOC based solvent shall not exceed 2,000 gallons/year.
   b. The density of the solvent shall not exceed 7.6 pounds/gallon.
   c. The VOC content of the solvent shall not exceed 39.6% by weight.
   c. The solvent wash shall not contain any HAP emissions.

E) Finished Parts Inspection Process (Emission Unit No. 005)
   h. The maximum material usages for the fluorescent penetrate shall not exceed the following per any twelve consecutive month period:
      i. Double Check Penetrant with a density of 7.9 lb/gallon: 500 gallons
      ii. Double Check Penetrant with a density of 7.3 lb/gallon: 500 gallons
      iii. Kwik Solv solvent with a density of 5.6 lb/gallon: 60 gallons

To:

5. As requested by the permittee, in order to limit the potential to emit and establish the facility as a synthetic minor for PM, VOC, and Hazardous Air Pollutants (HAP), the following emission limitations shall apply per any 12 consecutive month period: [Rules 62-4.070(3) and 62-210.200, F.A.C. and Construction Permit Application Received April 20, 2011]

A) The allowable particulate matter emissions from each baghouse associated with EU No. 004 shall not exceed 0.03 grains/DSCF.
B) The facility wide VOC emissions shall not exceed 10 tons/year.
C) The HAP, as defined in Rule 62-210.200, F.A.C., emissions shall be less than 10 tons for any individual HAP and less than 25 tons for any combination of HAPs.

9. The following restrictions and limitations shall apply for any 12 consecutive month period in order to ensure compliance with Specific Condition Nos. 5, 6, and 8: [Rule 62-4.070(3), F.A.C. and Construction Permit Application Received April 20, 2011]

A) Reserved

E) Finished Parts Inspection Process (Emission Unit No. 005)
   h. Reserved

17. In order to demonstrate compliance with Specific Condition Nos. 5, 7, 8, and 9, the permittee shall maintain a monthly recordkeeping system. The records shall be maintained onsite for three years and shall

be made available to any local, state, or federal air pollution agency upon request. The records shall include, but not limited to, the following: [Rules 62-4.070(3) and 62-4.160(14), F.A.C.]

G) Amount, density, and VOC content of each material used in the fluorescent penetrate process (gallons)

I) Monthly VOC emissions from the dip tank and the fluorescent penetrate process
J) Rolling twelve month totals of C), E), F), G), H), and I) above
K) Record the observations specified in 9.B)c.iii and iv.

Comment No. 6: There are 3 EDM machines. However, only two are oil based. The emissions from the EDM machines come from the burned oil smoke created by the heat caused by metal cutting. The 3rd EDM machine uses ionic water and therefore does not have any emissions associated with it. We request that this unit be exempted from permitting.

Response: After further review of the EDM machine process and the fact that the emissions from these machines are minimal, as they are also vented inside the building, EPC staff has determined that all three EDM machines can be exempt from permitting. Therefore, the reference to the EDM machines in Specific Condition No. 14 will be removed from the permit and the only reference to the EDM machines will be in the process description.

Comment No. 7: The EDM Machines, Blasting Cabinets, and the Roll Over Furnaces are vented inside. VEs can only be done at the building openings. Please make appropriate changes to the permit language to reflect that.

Response: Specific Condition No. 8 states "For the two Rollover Ovens, and the Blasting/Grinding and Sanding Operations (EU No. 004), each visible emissions test shall be performed on the building door which is closest to each operation." In addition, VE testing for the EDM machines is not required by this permit. EPC staff believes that this condition specifies how the VEs for the above mentioned emissions sources shall be done, which is conducting the VE on the building opening that is closest to each source. Therefore, EPC staff does not believe that the permit requires any changes.

Comment No. 8: Visible emissions testing is specified for the vacuum furnaces. As stated before, we believe there are no emissions from these units. This is a process of energy transfer from the electromagnetic field to the metal ingots causing resistance and heat which melts the metal. The only exhaust to the atmosphere is from the vacuum pump which pulls the ambient air out of the chamber prior to heating of the furnaces to create a vacuum. We are requesting that these units be exempt from permitting. Visible emissions testing of electric driven pumps seems inappropriate and unnecessary.

Response: After further review of the vacuum furnace operation at this facility, EPC staff agrees with the permittee's determination that the emissions from these machines are minimal and the vacuum furnaces can be exempted from permitting. In addition, the rollover furnaces, which will be sporadically used on small parts as needed, will emit very minimal emissions, and therefore, can be exempted from permitting. Therefore, Specific Condition Nos. 9.C) is removed from the permit and the VE testing requirement for the vacuum furnaces in Specific Condition No. 10 is removed. The only reference to the vacuum furnaces and rollover furnaces will be in the process description.

Comment No. 9: We believe the blasting/grinding cabinets should be exempted from permitting since they are exhausted inside the building and the building is kept at a negative pressure. Also, the number of cabinets may increase to 50 and some of them may share baghouses instead of being vented into individual dust collectors.

Response: Based on the airflow rates of the baghouses provided via email on June 22, 2011 from Steve Misuraca of Chromalloy Castings and a particulate matter exhaust standard of 0.03 gr/dscf, the potential to emit of the thirty-one baghouses is 23.9 tons/year. Assuming a 90% control efficiency for the partially enclosed building, the potential particulate matter emissions from the baghouses is 4.6 tons/year. Also, the room where the blasting/grinding operation occurs has an outside access door that is open during normal operations and there is not a condition in the permit that restricts the operation of this access door. EPC staff believes that the emissions from this operation are significant enough to justify the regulation of this source. Also, by regulating this emission unit, it will provide reasonable assurance that the permittee will properly operate and maintain the blasting/grinding cabinets and the thirty-one (31) baghouses, especially since they may control up to fifty blasting/grinding cabinets. Based on this, the process description will be changed to reflect that there will be a maximum of fifty blasting/grinding cabinets which will vent to a maximum of thirty-one baghouses.

Comment No. 10: The optimum temperature for the afterburner is approximately 1,425 °F. Please change the language to require a temperature of 1,425 °F or above.

Response: As requested, Specific Condition No. 9.B) c. ii. is changed to reflect that the afterburner shall be maintained at a minimum temperature of 1,425°F during operation, including during the charging operation**.**

Comment No. 11: Remove the reference to the casting molds being made of rubber in the second paragraph of the process description.

Response: As requested, the process is changed as follows to remove the reference to the casting molds being made of rubber.

From:
Casting molds, which are made out of rubber, will be injected with wax and stored inside the building to allow for cooling.

To:
Casting molds will be injected with wax and stored inside the building to allow for cooling.

Comment No. 12: Change Paragraph 4 of the process description as follows: Once the mold has cooled, the parts will be separated, grit blasted and buffed to ensure that all of the ceramic is removed from the metal part. There are a total of thirty-one cabinets. Each grit blast cabinet is vented to its own baghouse which exhausts inside a partially enclosed process area.

Also, change the process description to reflect that a portion of the parts are processed through the acid cleaning room prior to being placed in the heat treat furnaces.

Response: In order to accurately reflect the facility's operation, the process description is changed as follows.

From:
Once the mold has cooled, the parts will be grit blasted and buffed in small, fully enclosed cabinets to ensure that all of the ceramic is removed from the metal part. There are a total of thirty-one cabinets. Each cabinet is vented to its own baghouse which exhausts inside a partially enclosed process area. Once the parts have been grit blasted and buffed, the parts will be placed into one of six heat treat ovens which use pressure to harden the part. The heat treat ovens are electric powered and no melting of metal occurs in the ovens. Therefore, the heat treat ovens are exempt from permitting because there are no emissions associated with them.

The finished parts will be inspected using several nondestructive means (magnetic tester, fluorescent penetrate, and x-ray). In the acid cleaning room the finished parts will be dipped in several types of acids to determine the grain characteristic of the part. An 11,000 ACFM AAT, Inc., Orion Model 11V-IS-P, Packed Bed Scrubber with a mist eliminator will control particulate matter and acid mist emissions from the acid cleaning room. The parts will also be inspected using a fluorescent penetrate process. The parts will be dipped in penetrate, covered with a developer, and then inspected under a black light for flaws, defects, or residual ceramic.

To:
Once the mold has cooled, the parts will be separated, grit blasted, and buffed to ensure that all of the ceramic is removed from the metal part. There will be a maximum of fifty blasting and/or buffing cabinets which will vent to a maximum of thirty-one baghouses. The baghouses exhaust inside a partially enclosed process area. After being grit blasted and/or buffed, a portion of the parts will then be dipped in several types of acids in the acid cleaning room to determine the grain characteristic of the part. An 11,000 ACFM AAT, Inc., Orion Model 11V-IS-P, Packed Bed Scrubber with a mist eliminator will control particulate matter and acid mist emissions from the acid cleaning room.

The parts will then be placed into one of six vacuum heat treat ovens which use negative pressure and heat to harden the part. The heat treat ovens are electric powered and no melting of metal occurs in the ovens. Therefore, the heat treat ovens are exempt from permitting because there are no emissions associated with them. The finished parts will then be inspected using several nondestructive means (magnetic tester and x-ray). The parts will also be inspected using a fluorescent penetrate process. The parts will be dipped in penetrate, covered with a developer, and then inspected under a black light for flaws, defects, or residual ceramic.

Comment No. 13: Change Paragraph 14 of the process description to reflect that the facility is subject to 40 CFR 63 Subpart ZZZZZZ— National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries because the annual metal melt capacity of aluminum, copper, and other nonferrous metals, including all associated alloys is greater than the 600 tons/year, as specified by this rule.

Response: Based on the above comment, the process description and the Rule Applicability are changed to state that the facility is subject to 40 CFR 63 Subpart ZZZZZZ. The State of Florida has not been adopted this NESHAP, however, it will be referenced in the process description.

Comment No. 14: Specific Condition No. 17.G requires the facility to maintain records of the natural gas usage of the pre-heat ovens. However, a gas meter has not been installed yet. Chromalloy requests that the condition be revised to require that the natural gas usage be recorded once a gas meter has been installed.

Response: After further conversations with Steve Misuraca of Chromalloy Castings, it was clarified that the facility has one natural gas meter which records the natural gas usage of the entire facility. This will satisfy the recordkeeping requirements for natural gas usage. The recordkeeping requirements will be changed to recording the natural gas usage for the facility.

Comment No. 15: Chromalloy would like to consider possibly utilizing a facility wide dust collector limit rather than referring to dust collectors individually (EU No. 004). The facility is requesting this because over the course of the next year, we may replace several dust collectors with more efficient units. The facility may also replace some of the older units (from the Anderson Road facility) with new units. Currently, if we total all of the dust collectors in the facility, the total cfm sums up to 40,400 cfm. Possibly, the permit could be modified to have a facility wide total of say 50,000 cfm.

Response: After further review of the thirty-one baghouses which exhaust inside a partially enclosed process area, EPC staff has determined that the baghouses can be exempted from permitting per Rule 62-210.300(3)(b)1., F.A.C. because the combined potential PM emissions from the baghouses are less than 5.0 tons/year. Also, the potential PM emissions from each individual baghouse are less than 1.0 tons/year so each baghouse is exempt from PM RACT per Rule 62-296.700(2)(c), F.A.C. The process description and the specific conditions of the permit are changed to reflect that these baghouses are exempt from permitting.

Based on our review, we recommend that the above referenced permit be issued as drafted.

LAW: 0571408-002-AC

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

FOR

Chromalloy Castings, Tampa Corporation

Hillsborough County

Construction Permit

Application Number

0571408-002-AC

Environmental Protection Commission of

Hillsborough County

Tampa, FL

Date TBD

I. Project Description

A. Applicant:

Stephen Misuraca
Environmental, Health, and Safety Manager
Chromalloy Castings Tampa Corporation
3401 Queen Palm Dr.
Tampa, Fl 33619

B. Engineer:

Omana Antony Taylor, P.E.
P.E. No.: 51996
ETG, Inc.
12 Half Moon River Ct.
Savannah, GA 31410

C. Project and Location:

For the modification of a metal casting product manufacturing facility. The project has been assigned NEDS Source Classification Code No. 3-04-050-01 for Industrial Processes, Secondary Metal Production, Miscellaneous Casting Fabricating, Other Not Classified. The Standard Industrial Code for the project is No. 37 for Transportation Equipment. The facility is located at 3401 Queen Palm Dr., Tampa, FL 33619. UTM Coordinates of the location are 17- 349.00E and 3100.00N.

D. Process and Controls:

This permit is being issued to reflect several changes that were made to the metal casting product manufacturing operation when the facility moved its operations from 7030 Anderson Road, Tampa, Fl to 3401 Queen Palm Dr., Tampa, FL. The changes in the operation include the following:

1) Authorize the use of an 11,000 ACFM AAT, Inc., Orion Model 11V-IS-P, Packed Bed Scrubber with mist eliminator to control emissions from the acid cleaning room instead of the 5,000 ACFM Vanaire, Model No. HF-150, Packed Bed Scrubber.
2) Authorize the use of nitric acid and phosphoric acid in the acid cleaning room and increase the material usage of all of the acids used in the acid cleaning room.
3) Clarify that melting of metal does not occur in the pre-heat ovens or in the heat treat ovens.
4) Reflect the use of fifty blasting cabinets to grit blast, sand, and buff the finished parts. The blasting cabinets will vent to thirty-one baghouses which exhaust inside a partially enclosed process area. This operation has been determined to be exempt from permitting.

5) Reflect that the facility is subject to 40 CFR 63 Subpart ZZZZZZ— National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries. Since the State has not adopted this Rule, the only reference to this federal regulation will be in the process description.

The metal casting product process begins with wax injection molding. Casting molds will be injected with wax and stored inside the building to allow for cooling. Once cooled, the molds will be dipped into a tank containing a VOC based solvent to clean the mold. The molds are then covered with sand or stucco using an automated system to create a ceramic covering over the wax mold.

Once the ceramic covering has dried, the molds are put into one of two electric powered steam autoclaves which use high temperatures to melt the wax out of the mold. The autoclaves are exempt from permitting because the wax is not volatilized, therefore, there are no emissions associated with the autoclaves. To burn off any residual wax which may remain inside of the mold, the molds will then be placed in one of four identical, natural gas fired 1.0 MMBtu/hr Pacific Kiln wax burn-off ovens. Two of the burn-off ovens have their own afterburners rated at 1.0 MMBtu/hr each and the remaining two burn-off ovens share one afterburner rated at 0.75 MMBtu/hr. The molds will then be placed in one of four natural gas fired pre-heat ovens which will heat the mold to a uniform temperature in order to prevent the mold from cracking when cast. The mold will then be moved into one of eight vacuum furnaces where metal ingots will be melted down and the molds will be filled with molten metal. The parts will then be removed from the furnaces and sprinkled with a chemical referred to as “hot top” which is used to help ensure that the part cools at a uniform rate. For small metal parts, the molds may be cast by one of two roll over furnaces where metal is melted inside the furnace, a mold is placed on top of an opening at the top of the furnace, and the furnace is manually turned upside down so that the molten metal falls into the mold. Once cast, the molds from all of the furnaces will be moved to an adjacent area where they will be left for several days to cool. The facility will use natural gas for fueling the wax burn-off ovens and the pre-heat ovens. The vacuum furnaces and the rollover furnaces are electric powered and are exempt from permitting pursuant to Rule 62-210.300(3)(b)1., F.A.C.

Once the mold has cooled, the parts will be separated, grit blasted, and buffed to ensure that all of the ceramic is removed from the metal part. There will be a maximum of fifty blasting and/or buffing cabinets which will vent to a maximum of thirty-one baghouses. The baghouses exhaust inside a partially enclosed process area and are exempt from permitting per Rule 62-210.300(3)(b)1., F.A.C. because the combined potential PM emissions from the baghouses are less than 5.0 tons/year. Also, the potential PM emissions from each individual baghouse are less than 1.0 tons/year, so each baghouse which vents indoors is exempt from PM RACT per Rule 62-296.700(2)(c), F.A.C.

After being grit blasted and/or buffed, a portion of the parts will then be dipped in several types of acids in the acid cleaning room to determine the grain characteristic of the part. An 11,000 ACFM AAT, Inc., Orion Model 11V-IS-P, Packed Bed Scrubber with a mist eliminator will control particulate matter and acid mist emissions from the acid cleaning

room.

The parts will then be placed into one of six vacuum heat treat ovens which use negative pressure and heat to harden the part. The heat treat ovens are electric powered and no melting of metal occurs in the ovens. Therefore, the heat treat ovens are exempt from permitting because there are no emissions associated with them. The finished parts will then be inspected using several nondestructive means (magnetic tester and x-ray). The parts will also be inspected using a fluorescent penetrate process. The parts will be dipped in penetrate, covered with a developer, and then inspected under a black light for flaws, defects, or residual ceramic.

In some metal parts, ceramic may still remain on or inside the part. If the parts need any final cleaning or touch-up, they will be moved to a separate staging area where the parts will be inspected, hand sanded or cleaned, and re-inspected. If the part is off-spec or the metal part needs additional machining, three XERMAC electro discharge machines (EDM) will be used. Each EDM machine is rated at 3 inches per hour for machining. The EDM machines are exempt from permitting pursuant to Rule 62-210.300(3)(b)1., F.A.C.

The facility also has a 2,400 HP, diesel fired, emergency generator that is categorically exempt from permitting pursuant to Rule 62-210.300(3)(a)35., F.A.C. provided that the fuel usage of the generator does not exceed 64,000 gallons/year of diesel fuel. This generator is also exempt from 40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines because it was manufactured before April 1, 2006. The emergency generator is also exempt from 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

The facility also conducts lab testing and research at a warehouse located near the main facility. The lab is located at 3409 Cragmont Drive, Tampa, FL 33619. Based on information provided by the permittee, the lab is exempt from permitting pursuant to Rule 62-210.300(3)(b)2., F.A.C. because the emissions from the lab testing and research were estimated to be less than 2.5 tons per year of total hazardous air pollutants; less than 25 tons per year of carbon monoxide, nitrogen oxides and sulfur dioxide; and less than 10 tons per year of any other regulated pollutant.

The facility is subject to Rule 62-296.320, F.A.C. - General Pollutant Emission Limiting Standards. The facility is exempt from Rule 62-296.700, Reasonably Available Control Technology – Particulate Matter, F.A.C. because the potential PM emissions are less than fifteen tons per year and five pounds per hour. Also, the four wax burn-off ovens are not subject to Rule 62-296.401(1)(a), F.A.C. - Incinerators because they do not meet the definition of an Incinerator as defined in Rule 62-210.200(160) – Incinerator, F.A.C.

The facility is subject to 40 CFR 63 Subpart ZZZZZZ— National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries because according to the facility, the potential annual metal melt capacity of aluminum, copper, and other nonferrous metals, including all associated alloys is

greater than the 600 tons/year. This NESHAP has not been adopted by the State of Florida, however, it will be referenced in the process description.

E. Application Information:

Received on: April 20, 2011
Information Requested: N/A
Application Complete: April 20, 2011

II. Rule Applicability

This project is subject to the preconstruction review requirements of Chapter 403, Florida Statutes, Chapters, 62-204, 62-210, 62-212, 62-296, and 62-297, Florida Administrative Code (F.A.C.) and Chapter 1-3 of the Rules of the Environmental Protection Commission of Hillsborough County.

This project is subject to the requirements of Rule 62-212.300, General Preconstruction Review Requirements, F.A.C., since the project is not exempt from the permit requirements in Rule 62-210.300, F.A.C.

This project is not subject to the requirements of Rule 62-212.400, Prevention of Significant Deterioration, F.A.C. or Rule 62-212.500, New Source Review for Nonattainment Areas, F.A.C. since the facility is a Synthetic Non-TV facility by state definition.

This project is not subject to the requirements of Rule 62-213, Operation Permits for Major Sources of Air Pollution, F.A.C., since the facility is a Synthetic Non-TV facility by state definition.

This project is subject to the requirements of Rule 62-296.320, General Pollutant Emission Limiting Standards, F.A.C., since the project is a source of particulate matter (PM) emissions and visible emissions.

This project is not subject to the requirements of Rule 62-296.340, through 62-296.470, Specific Emission Limiting and Performance Standards, F.A.C., since there is no applicable source specific category in this rule.

This project is not subject to the requirements of Rule 62-296.500, Volatile Organic Compounds and Nitrogen Oxides Reasonably Available Control Technology, F.A.C., since there is no applicable source specific category in this rule.

This project is not subject to the requirements of Rule 62-296.600, Reasonably Available Control Technology - Lead, F.A.C., since there is no applicable source specific category in this rule.

This project is not subject to the requirements of Rule 62-296.700, Reasonably Available Control Technology – Particulate Matter, F.A.C. because the potential PM emissions are less than fifteen tons per year and five pounds per hour.

This project is not subject to the requirements of Rule 62-204.800, Federal Regulations Adopted by Reference, F.A.C., since there is not an applicable source specific category in this rule. However, this facility is subject to 40 CFR 63 Subpart ZZZZZZ— National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries, which has not been adopted by the State of Florida.

This project is subject to the requirements of Chapter 84-446, Laws of Florida and Chapter 1-3, Rules of the Environmental Protection Commission of Hillsborough County.

III. Summary of Emissions

Potential Criteria Pollutants

Emission Unit (EU) No.	**EU Description**	**PM (tpy)**	**NO_x (tpy)**	**SO_2 (tpy)**	**CO (tpy)**	**VOC (tpy)**	**HCl (tpy)**	**SAM (tpy)**	**Allowable**	**Opacity**
001	Dip Tanks for Mold Preparation	--	--	--	--	*	--	--	--	--
002	Wax burn-off ovens	8.4	--	--	--	--	--	--	--	5%
005	Finished Parts Inspection Process	1.4	--	--	--	*	4.0	2.5	--	5%
006	Natural Gas Usage in the Pre-heat Ovens	0.4	5.7	0.03	4.8	0.3	--	--	--	20%
	Facility Total Potential to Emit	**10.2**	**5.7**	**0.03**	**4.8**	**10**	**4.0**	**2.5**	--	--

Inventory of Title III pollutants is estimated to be less than 10 TPY individually and less than 25 TPY collectively.

- *The material usage, density, and the VOC content of the materials used in the Dip Tank (EU No. 001) and the fluorescent penetrate process may vary provided that the maximum VOC emissions from those operations do not exceed 10 tons/year.
- The emissions for EU No. 002 are based on a throughput of 1,600 lbs/hour of molds processed through each oven, a maximum of 48 lbs of wax per hour (3% of the mold weight) which is volatilized in each oven, and an afterburner efficiency of 99%.
- The emissions for EU No. 005 from the acid cleaning room are based on the material usages and a scrubber efficiency of 95%. The emissions from the fluorescent penetrate process are based on the material usages and the density of each material.
- The emissions for EU No. 006 are based on AP 42 5th Edition, Ch. 1.4 – Natural Gas Combustion, Tables 1.4-1 and 1.4-2.

The combustion of natural gas in the wax burn-off ovens is exempt from permitting pursuant to Rule 62-210.300(3)(b)1., F.A.C. because the potential emissions, based on a potential annual usage of 57 million standard cubic feet of natural gas, are estimated to be less than 5.0 tons per year or more of any regulated air pollutant other than lead and HAPs.

IV. Conclusions:

The emission limits proposed by the applicant will meet all of the requirements of Chapters 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C., and Chapter 1-3, Rules of the Commission.

The General and Specific Conditions listed in the proposed permit (attached) will assure compliance with all the applicable requirements of Chapters 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

V. Proposed Agency Action:

Pursuant to Section 403.087, Florida Statutes and Rule 62-4.070, Florida Administrative Code the Environmental Protection Commission of Hillsborough County hereby gives notice of its intent to issue a permit to construct the aforementioned air pollution source in accordance with the draft permit and its conditions as stipulated (see attached).

CERTIFIED MAIL

In the Matter of an
Application for Permit by:

Stephen Misuraca
Environmental, Health, and Safety Manager
Chromalloy Castings Tampa Corporation
3401 Queen Palm Dr.
Tampa, Fl 33619

File No.: 0571408-002-AC
County: Hillsborough

INTENT TO ISSUE

The Environmental Protection Commission of Hillsborough County (EPC), as delegated by the Florida Department of Environmental Protection (DEP) gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above, for the reasons stated below.

The applicant, Chromalloy Castings Tampa Corporation, applied on April 20, 2011 to the EPC to modify their metal casting product manufacturing process. The modifications include: 1) authorizing the use of an 11,000 ACFM Scrubber to control emissions from the acid cleaning room; 2) increasing the material usage of all the acids used in the acid cleaning room; 3) revising the process description to more accurately reflect the facility's operations; and 4) reflecting that the facility is subject to 40 CFR 63 Subpart ZZZZZZ. Chromalloy Castings Tampa Corporation is located at 3401 Queen Palm Dr., Tampa, Hillsborough County, FL, 33619.

The EPC has permitting jurisdiction under Chapter 403 Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4 and 62-210. The project is not exempt from permitting procedures. The EPC has determined that an air pollution construction permit is required to commence or continue operations at the described facility.

The EPC intends to issue this permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will comply with the appropriate provisions of Florida Administrative Code (F.A.C.) Chapters 62-204 through 62-297 and 62-4.

Pursuant to Pursuant to Section 403.815 and 403.0872, F.S. and Rules 62-103.150 and

62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the EPC at the address or telephone number listed below. **The applicant shall provide proof of publication to the EPC, Air Permitting Section, at 3629 Queen Palm Drive, Tampa, Florida 33619 (Phone 813-627-2600 - FAX 813-627-2660) within 7 (seven) days of publication.** Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150(6), F.A.C.

The EPC will issue the final permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Section 120.569 and 120.57 F.S. before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Legal Department of the EPC at 3629 Queen Palm Drive, Tampa, Florida 33619, Phone 813-627-2600, Fax 813-627-2602. Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the EPC for notice of agency action may file a petition within 14 (fourteen) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S.; or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the EPC's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number if known;

(b) The name, address, and telephone number of the petitioner and the name, address, and telephone number of each petitioner's representative, if any, which shall be the address for service purposes during the course of the proceedings; and an explanation of how the petitioner's substantial interests will be affected by the EPC's determination;

(c) A statement of how and when the petitioner received notice of the EPC action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner

contends warrant reversal or modification of the EPC's proposed action;

(f) A statement of specific rules or statutes the petitioner contends requires reversal or modification of the EPC's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the EPC to take with respect to the EPC's proposed action.

A petition that does not dispute the material facts upon which the EPC's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the EPC's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the EPC on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation under section 120.573, F.S. is not available in this proceeding.

This action is final and effective on the date filed with the Clerk of the EPC unless a petition is filed in accordance with above. Upon the timely filing of a petition, this order will not be effective until further order of the EPC.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, FL 32399-3000. The petition must specify the following information:

(a) The name, address, and telephone number of the petitioner,

(b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any,

(c) Each rule or portion of a rule from which a variance or waiver is requested,

(d) The citation to the statute underlying (implemented by) the rule identified in (c) above,

(e) The type of action requested,

(f) The specific facts that would justify a variance or waiver for the petitioner,

(g) The reason by the variance or waiver would serve the purposes of the underlying statute (implemented by the rule), and

(h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the

application of the rule would create a substantial hardship or violate principles of fairness, as each of the those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Any person listed below may request to obtain additional information, a copy of the application (except for information entitled to confidential treatment pursuant to Section 403.111, F.S.), all relevant supporting materials, and all other materials available to the EPC that are relevant to the permit decision. Interested persons may contact Diana M. Lee, P.E., at the above address or call (813) 627-2600, for additional information.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statues, by filing a notice of appeal under rule 9.110 of the Florida rules of Appellate Procedure with the EPC's Legal Office at 3629 Queen Palm Dr., Tampa, Florida 33619 and with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tampa, Florida

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

_____

Richard D. Garrity, Ph.D.
Executive Director

cc: Florida Department of Environmental Protection (via email)
Omana Antony Taylor, P.E. – ETG, Inc. (via email)

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT ISSUANCE and all copies were mailed before the close of business on _____ to the listed persons.

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statues, with the clerk, receipt of which is hereby acknowledged.

_____ _____
Clerk Date

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY
NOTICE OF INTENT TO ISSUE PERMIT

The Environmental Protection Commission of Hillsborough County (EPC), as delegated by the Florida Department of Environmental Protection (DEP), gives notice of its intent to issue an air pollution Permit No. 0571408-002-AC to Chromalloy Castings Tampa Corporation. The applicant applied on April 20, 2011 to the EPC to modify their metal casting product manufacturing process. The modifications include: 1) authorizing the use of an 11,000 ACFM Scrubber to control emissions from the acid cleaning room; 2) increasing the material usage of all the acids used in the acid cleaning room; and 3) revising the process description to more accurately reflect the facility's operations. Chromalloy Castings, which is a Synthetic Non-TV facility, is located at 3401 Queen Palm Dr., Tampa, Hillsborough County, FL, 33619.

A Best Available Control Technology (BACT) determination was not required.

The EPC will issue the Final permit with the conditions of the DRAFT permit unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S. before the deadline for filing a petition. The procedures for petitioning for hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Legal Department of the EPC at 3629 Queen Palm Drive, Tampa, Florida 33619, Phone 813-627-2600, Fax 813-627-2602. Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the EPC for notice of agency action may file a petition within 14 (fourteen) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the F.A.C.

A petition that disputes the material facts on which the EPC's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number if known;

(b) The name, address, and telephone number of the petitioner, and the name, address, and telephone number of each petitioner's representative, if any, which shall be the address for service purposes during the course of the proceedings; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when petitioner received notice of the EPC action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the EPC proposed action;

(f) A statement of specific rules or statutes the petitioner contends requires reversal or modification of the EPC's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the EPC to take with respect to the EPC's proposed action.

A petition that does not dispute the material facts upon which the EPC's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the EPC's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the EPC on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation under section 120.573, F.S. is not available in this proceeding.

This action is final and effective on the date filed with the Clerk of the EPC unless a petition is filed in accordance with above. Upon the timely filing of a petition this order will not be effective until further order of the EPC.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statues, by filing a notice of appeal under rule 9.110 of the Florida rules of Appellate Procedure with the EPC's Legal Office at 3629 Queen Palm Drive, Tampa, Florida 33619 and with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

The complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the Environmental Protection Commission of Hillsborough County, 3629 Queen Palm Drive, Tampa, Florida 33619. The complete project file includes the proposed Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Diana M. Lee, P.E., at the above address, or call 813-627-2600, for additional information. Any written comments filed shall be available for public inspection. If written comments received result in a significant change in the proposed agency action, the EPC shall revise the proposed permit and require, if applicable, another Public Notice.

ENVIRONMENTAL PROTECTION COMMISSION OF
HILLSBOROUGH COUNTY, as Delegated by

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF PERMIT

Stephen Misuraca
Environmental, Health, and Safety Manager
Chromalloy Castings Tampa Corporation
3401 Queen Palm Dr.
Tampa, Fl 33619

Re: Hillsborough County - AP

Dear Mr. Misuraca:

Enclosed is Permit Number 0571408-002-AC to modify a metal casting product manufacturing process. The modifications include: 1) authorizing the use of an 11,000 ACFM Scrubber to control emissions from the acid cleaning room; 2) increasing the material usage of all the acids used in the acid cleaning room; 3) revising the process description to more accurately reflect the facility's operations; and 4) reflecting that the facility is subject to 40 CFR 63 Subpart ZZZZZZ, issued pursuant to Section 403.087, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the EPC in the Legal Department at 3629 Queen Palm Drive, Tampa, Florida 33619; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the clerk of the EPC.

Executed in Tampa, Florida.

Sincerely,

Richard D. Garrity, Ph.D.
Executive Director

RDG/LAW/law

cc: Florida Department of Environmental Protection (via email)
Omana Antony Taylor, P.E. – ETG, Inc. (via email)

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT ISSUANCE and all copies were mailed before the close of business on _____ to the listed persons.

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statues, with the clerk, receipt of which is hereby acknowledged.

_____ _____
Clerk Date

PERMITTEE:
Chromalloy Castings Tampa Corporation
3401 Queen Palm Dr.
Tampa, FL 33619

PERMIT/CERTIFICATION
Permit No: 0571408-002-AC
County: Hillsborough
Expiration Date: October 15, 2012
Project: Metal Casting Product Manufacturing

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 62-204, 62-210, 62-212, 62-296, 62-297, and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the EPC and made a part of hereof and specifically described as follows:

This permit is being issued to reflect several changes that were made to the metal casting product manufacturing operation when the facility moved its operations from 7030 Anderson Road, Tampa, Fl to 3401 Queen Palm Dr., Tampa, FL. The changes in the operation include the following:

1) Authorize the use of an 11,000 ACFM AAT, Inc., Orion Model 11V-IS-P, Packed Bed Scrubber with mist eliminator to control emissions from the acid cleaning room instead of the 5,000 ACFM Vanaire, Model No. HF-150, Packed Bed Scrubber.
2) Authorize the use of nitric acid and phosphoric acid in the acid cleaning room and increase the material usage of all of the acids used in the acid cleaning room.
3) Clarify that melting of metal does not occur in the pre-heat ovens or in the heat treat ovens.
4) Reflect the use of fifty blasting cabinets to grit blast, sand, and buff the finished parts. The blasting cabinets vent to a maximum of thirty-one baghouses which exhaust inside a partially enclosed process area. This operation has been determined to be exempt from permitting.

The metal casting product process begins with wax injection molding. Casting molds will be injected with wax and stored inside the building to allow for cooling. Once cooled, the molds will be dipped into a tank containing a VOC based solvent to clean the mold. The molds are then covered with sand or stucco using an automated system to create a ceramic covering over the wax mold.

Once the ceramic covering has dried, the molds are put into one of two electric powered steam autoclaves which use high temperatures to melt the wax out of the mold. The autoclaves are exempt from permitting

because the wax is not volatilized, therefore, there are no emissions associated with the autoclaves. To burn off any residual wax which may remain inside of the mold, the molds will then be placed in one of four identical, natural gas fired 1.0 MMBtu/hr Pacific Kiln wax burn-off ovens. Two of the burn-off ovens have their own afterburners rated at 1.0 MMBtu/hr each and the remaining two burn-off ovens share one afterburner rated at 0.75 MMBtu/hr. The molds will then be placed in one of four natural gas fired pre-heat ovens which will heat the mold to a uniform temperature in order to prevent the mold from cracking when cast. The mold will then be moved into one of eight vacuum furnaces where metal ingots will be melted down and the molds will be filled with molten metal. The parts will then be removed from the furnaces and sprinkled with a chemical referred to as "hot top" which is used to help ensure that the part cools at a uniform rate. For small metal parts, the molds may be cast by one of two roll over furnaces where metal is melted inside the furnace, a mold is placed on top of an opening at the top of the furnace, and the furnace is manually turned upside down so that the molten metal falls into the mold. Once cast, the molds from all of the furnaces will be moved to an adjacent area where they will be left for several days to cool. The facility will use natural gas for fueling the wax burn-off ovens and the pre-heat ovens. The vacuum furnaces and the rollover furnaces are electric powered and are exempt from permitting pursuant to Rule 62-210.300(3)(b)1., F.A.C.

Once the mold has cooled, the parts will be separated, grit blasted, and buffed to ensure that all of the ceramic is removed from the metal part. There will be a maximum of fifty blasting and/or buffing cabinets which will vent to a maximum of thirty-one baghouses. The baghouses exhaust inside a partially enclosed process area. The thirty-three baghouses which control emissions from the blasting/grinding and sanding booths and which vent indoors are exempt from permitting per Rule 62-210.300(3)(b)1., F.A.C. because the combined potential PM emissions from the baghouses are less than 5.0 tons/year.

After being grit blasted and/or buffed, a portion of the parts will then be dipped in several types of acids in the acid cleaning room to determine the grain characteristic of the part. An 11,000 ACFM AAT, Inc., Orion Model 11V-IS-P, Packed Bed Scrubber with a mist eliminator will control particulate matter and acid mist emissions from the acid cleaning room.

The parts will then be placed into one of six vacuum heat treat ovens which use negative pressure and heat to harden the part. The heat treat ovens are electric powered and no melting of metal occurs in the ovens. Therefore, the heat treat ovens are exempt from permitting because there are no emissions associated with them. The finished parts will then be inspected using several nondestructive means (magnetic tester and x-ray). The parts will also be inspected using a fluorescent penetrate process. The parts will be dipped in penetrate, covered with a developer, and then inspected under a black light for flaws, defects, or residual ceramic.

In some metal parts, ceramic may still remain on or inside the part. If the parts need any final cleaning or touch-up, they will be moved to a separate staging area where the parts will be inspected, hand sanded or cleaned, and re-inspected. If the part is off-spec or the metal part needs additional machining, three XERMAC electro discharge machines (EDM) will be used. Each EDM machine is rated at 3 inches per hour for machining. The EDM machines are exempt from permitting pursuant to Rule 62-210.300(3)(b)1., F.A.C.

The facility is subject to 40 CFR 63 Subpart ZZZZZZ— National Emission Standards for Hazardous Air

Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries. This NESHAP has not been adopted by the State of Florida.

The facility also has a 2,400 HP, diesel fired, emergency generator that is categorically exempt from permitting pursuant to Rule 62-210.300(3)(a)35., F.A.C. provided that the fuel usage of the generator does not exceed 64,000 gallons/year of diesel fuel.

The facility also conducts lab testing and research at a warehouse located near the main facility. The lab is located at 3409 Cragmont Drive, Tampa, FL 33619. Based on information provided by the permittee, the lab is exempt from permitting pursuant to Rule 62-210.300(3)(b)2., F.A.C. because the emissions from the lab testing and research were estimated to be less than 2.5 tons per year of total hazardous air pollutants; less than 25 tons per year of carbon monoxide, nitrogen oxides and sulfur dioxide; and less than 10 tons per year of any other regulated pollutant.

Below is a list of the make and model number of all furnaces at the facility and a description of the regulated emission units.

Type of Furnace	**Manufacturer**	**Model No.**
Burn-Off Ovens	Pacific Kiln	FFDWS-9487236D8
Burn-Off Ovens	Pacific Kiln	FFDWS-6487236D8
Burn-Off Ovens	Pacific Kiln	PBF-CB-727252NG
Burn-Off Ovens	Pacific Kiln	PBF-CB-727252NG
Preheat Furnace	Pacific Kiln Pusher	1119-248
Preheat Furnace	Pacific Kiln Pusher	1298-241
Preheat Furnace	Pacific Kiln Pusher	0598-234
Preheat Furnace	Pacific Kiln Pusher	PBF-104-NG-HT
Vacuum	Retech	010139-9-1/260
Vacuum	Retech	010337
Vacuum	Retech	011950-15-1
Vacuum	Ajax	M-06-31414-TFK
Vacuum	DS	419988-JEE
Vacuum	Retech	300
Vacuum	Retech	300
Vacuum	Retech	300
Rollover	Inductotherm	N/A
Rollover	Inductotherm	N/A

Emission Unit Nos. and Descriptions:

EU ID No.	Description	Total Quantity	Control device
001	Dip Tank	1	None
002	Wax burn-off ovens	4	Three afterburners (Two of the burn-off ovens have their own afterburners and the remaining two burn-off ovens share one

			afterburner)
EU ID No.	Description	Total Quantity	Control device
005	Finished Parts Inspection Process	1	11,000 ACFM AAT, Inc., Orion Model 11V-IS-P, Packed Bed Scrubber with a mist eliminator
006	Natural Gas Combustion in the Pre-heat Ovens	4	None

Location: 3401 Queen Palm Dr., Tampa, Fl 33619

UTM: 17- 349.00E and 3100.00N NEDS No: 1408

Replaces Permit No.: 0571408-001-AC

1. A part of this permit is the attached General Conditions. [Rule 62-4.160, F.A.C.]

2. All applicable rules of the Environmental Protection Commission of Hillsborough County including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction. [Rule 62-4.070(7), F.A.C.]

3. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C., or any other requirements under federal, state, or local law. [Rule 62-210.300, F.A.C.]

4. The permittee shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]

5. As requested by the permittee, in order to limit the potential to emit and establish the facility as a synthetic minor for PM, VOC, and Hazardous Air Pollutants (HAP), the following emission limitations shall apply per any 12 consecutive month period: [Rules 62-4.070(3) and 62-210.200, F.A.C. and Construction Permit Application Received April 20, 2011]

A) The facility wide VOC emissions shall not exceed 10 tons/year.
B) The HAP, as defined in Rule 62-210.200, F.A.C., emissions shall be less than 10 tons for any individual HAP and less than 25 tons for any combination of HAPs.

6. The following restrictions and limitations shall apply in order to ensure compliance with Specific Condition No. 5: [Rules 62-297.620(4) and 62-296.320(4)(b)1., F.A.C. and Ch. 1-3.52.1. and 2. of the Rules of the EPCHC]

A) Visible emissions from each pre-heat oven (EU No. 006) shall not exceed 20% opacity.
B) Visible emissions from EU Nos. 002, 004, and 005 or any other activity at the facility shall not exceed 5% opacity.

7. The hours of operation of the facility are not limited. [Rule 62-4.070(3), F.A.C.]

8. The following restrictions and limitations shall apply per any twelve consecutive month period in order to ensure compliance with Specific Condition No. 5: [Rule 62-4.070(3), F.A.C. and Construction Permit Application Received April 20, 2011]

A) The maximum combined natural gas usage of the pre-heat furnaces (EU No. 006) shall not exceed 114 million cubic feet.
B) The ovens and the furnaces shall burn natural gas only or be electric powered

9. The following restrictions and limitations shall apply for any 12 consecutive month period in order to ensure compliance with Specific Condition Nos. 5, 6, and 8: [Rule 62-4.070(3), F.A.C. and Construction Permit Application Received April 20, 2011]

A) <u>Reserved</u>

B) <u>Wax burn-off ovens with afterburners (Emission Unit No. 002)</u>

a. All molds shall be placed in an autoclave to remove the wax prior to being placed in the burn-off ovens to remove any residual wax.
b. The following throughput and limitations shall apply:
    i. The throughput of each Pacific Kiln oven shall not exceed 1,600 lb/hour of molds
    ii. The number of molds placed in each oven per load shall not exceed 18 molds
    iii. The wax content of each mold shall not exceed 3% of the mold weight
    iv. The minimum destruction efficiency of each afterburner shall be 99%
c. The following practices shall be followed during the operation of each wax burn-off oven:
    i. Preheat the afterburner chamber until it reaches a minimum temperature of 1,425°F prior to the initial charge upon startup.
    ii. Maintain the afterburner temperature at a minimum of 1,425°F during operation, including during the charging operation.
    iii. Observe the stack, furnace doors/openings, and seals for visible emissions at least once per shift. Make note of any problems and correct promptly.
    iv. Record the temperature of each afterburner at least once per shift.
    v. Turn on the afterburner during ash removal or cleaning of the burn-off chamber.

C) <u>Reserved</u>

D) <u>Reserved</u>

E) <u>Finished Parts Inspection Process (Emission Unit No. 005)</u>
a. The maximum material usages for the acid cleaning room shall not exceed the following per any twelve consecutive month period:
    i. Nitric acid: 12,000 pounds
    ii. Acetic acid: 5,000 pounds
    iii. Sulfuric acid: 100,000 pounds
    iv. Ferric chloride: 60,000 pounds
    v. Hydrochloric acid: 100,000 pounds
    vi. Phosphoric acid: 40,000 pounds
b. Minimum scrubber efficiency: 95 percent
c. Operating scrubber liquid rate: 300 gallons/minute recirculation rate as recommended by the manufacturer
d. During the cleaning operation (metals parts being dipped in the tanks) the room doors shall be shut.
e. The scrubber shall be in operation while the cleaning operation is occurring.
f. When the cleaning operation is not occurring, the room doors shall be kept shut
g. Once per shift, the operator shall record the scrubber pressure drop if the scrubber is in operation during that shift.

10. Test each Wax Burn-Off Oven (EU No. 002) and the Finished Parts Inspection Process (EU No. 005) for visible emissions within 60 days of final issuance of this permit and annually thereafter. Submit two copies of the test data to the Air Management Division of the Environmental Protection Commission of Hillsborough County within 45 days of such testing. The EPA Method 9 test for the emission units shall be a minimum of thirty (30) minutes in duration. Testing procedures shall be consistent with the requirements of Rule 62-297, F.A.C. [Rule 62-297.310(4)(a)2. and (7)(a)4.a., F.A.C. and Ch. 1-3.52 of the Rules of the EPCHC]

11. In addition to the testing requirements specified in Specific Condition No. 10, the following shall apply to EU No. 006: [Rule 62-4.070(3), F.A.C.]

A) Test each Pre-heat Oven (EU No. 006) for visible emissions within 60 days of final issuance of this permit.
B) After the initial test specified in A) above, test each Pre-heat Oven for visible emissions if the combined natural gas usage of the Pre-heat Ovens is equal to or exceeds 99 million standard cubic feet (mmcf) during the corresponding fiscal year.
C) Test each Pre-heat Oven for visible emissions at least 90 days prior to the expiration date of the operating permit.

12. [Reserved]

13. Compliance with the emission limitations of Specific Condition Nos. 6, 10, and 11 shall be determined using EPA Methods 9 and 22 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A. [Rule 62-297.401, F.A.C.]

14. Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 90-100% of the production rates for each one of the regulated emission sources. If it is impracticable to test at capacity, then the source may be tested at less than capacity; in this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the EPC. Failure to submit the input rates and actual operating conditions, including the scrubber liquid flow rate (gpm) and the afterburner temperatures (°F) may invalidate the test. [Rules 62-4.070(3) and 62-297.310(2)(b), F.A.C.]

15. The permittee shall notify the Air Compliance Section of the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating and having such test conducted. [Rule 62-297.310(7)(a)9., F.A.C.]

16. [Reserved]

17. In order to demonstrate compliance with Specific Condition Nos. 5, 7, 8, and 9, the permittee shall maintain a monthly recordkeeping system. The records shall be maintained onsite for three years and shall be made available to any local, state, or federal air pollution agency upon request. The records shall include, but not limited to, the following: [Rules 62-4.070(3) and 62-4.160(14), F.A.C.]

A) Month/Year
B) The density, VOC content, and HAP content of the solvent wash used in the dip tank
C) Amount of solvent wash used in the dip tank (gallons)
D) Number of molds per load processed through each wax burn-off oven
E) Natural gas usage
F) Amount of each type of acid used in the acid cleaning room tanks (lbs)

G) Amount, density, and VOC content of each material used in the fluorescent penetrate process (gallons)
H) The amount of diesel fuel used in the emergency generator (gallons)
I) Monthly VOC emissions from the dip tank and the fluorescent penetrate process
J) Rolling twelve month totals of C), E), F), G), H), and I) above
K) Record the observations specified in 9.B) c.iii and iv.

18. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provision in Rule 62-296.320, F.A.C. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alterations, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. Reasonable precautions shall include, but not limited to, the following: [Rule 62-296.320(4)(c), F.A.C.]

A) Removal of particulate matter from paved areas, buildings, and work areas under the control of the owner/operator.
B) Ensure that waste collected by the baghouse is effectively contained and disposed of properly.
C) Clean accidental spills promptly.
D) Exercise good housekeeping at all times.
E) Carefully place ash or residue from the burn-off oven chamber in a leak tight container and dispose of properly. Moisten ash/residue, if necessary.

19. When the Environmental Protection Commission of Hillsborough County (EPC) after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Rules 62-204, 62-210, 62-212, 62-296, or 62-297, F.A.C., or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the EPC. [Rules 62-297.310(7)(b) and 62-4.070(3), F.A.C.]

20. The permittee shall not store, handle, process, or use in any process the volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems as follows and as deemed necessary and ordered by the Environmental Protection Commission of Hillsborough County: [Rule 62-296.320(1), F.A.C.]

A) Maintain tightly fitting cover, lids, etc. on all containers when they are not being handled, tapped, etc.
B) Where possible and practical, procure/fabricate a tightly fitting cover for any open trough, basin, etc. of VOC so that it can be covered when not in use.
C) Immediately attend to all spills/waste as appropriate.

21. The permittee shall provide timely notification to the Environmental Protection Commission of Hillsborough County prior to implementing any changes that may result in a modification to this permit pursuant to Rule 62-210.200(199), F.A.C., Modification. The changes do not include normal maintenance, but may include, and are not limited to, the following, and may also require prior authorization before implementation: [Rules 62-210.300 and 62-4.070(3), F.A.C.]

A) Alteration or replacement of any equipment or major component of such equipment.
B) Installation or addition of any equipment which is a source of air pollution.

22. If the permittee wishes to transfer this permit to another owner, an "Application for Transfer of Permit" (DEP Form 62-210.900(7)) shall be submitted, in duplicate, to the Environmental Protection Commission of Hillsborough County within 30 days after the sale or legal transfer of the permitted facility. [Rule 62-4.120, F.A.C.]

23. Submit to the Environmental Protection Commission of Hillsborough County each calendar year on or before April 1, completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year. [Rule 62-210.370(3)(c)., F.A.C.]

24. The afterburners associated with the wax burn off ovens and the scrubber shall be maintained in accordance with the manufacturer's specifications in order to provide reasonable assurance that the control devices will perform adequately the function for which they are intended. [Rules 62-296.700(6) and 62-4.070(3), F.A.C.]

25. A minimum of two copies of an air operating permit application shall be submitted to the Environmental Protection Commission of Hillsborough County within 60 days of completion of the initial compliance tests or at least 90 days prior to the expiration date of this permit, whichever occurs first. [Rules 62-4.050(2) and 62-4.090, F.A.C.]

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

_____
Richard D. Garrity, Ph.D.
Executive Director

P.E. Certification Statement

Permittee:
Chromalloy Castings Tampa Corporation
Tampa, Florida

DRAFT Permit No.: 0571408-002-AC
Facility ID No.: 0571408

Project Type: Air Construction

I HEREBY CERTIFY *that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural,*

hydrological, and geological features).

(Seal)

_____ _____

Diana M. Lee, P.E. Date

Permitting Authority:
Environmental Protection Commission
of Hillsborough County
Air Management Division
3629 Queen Palm Dr
Tampa, FL 33619
Telephone: (813) 627-2600
Fax: (813) 627-2660