

| Special Process: Plating System Assessment               |                    |   |  |
|--|--------------------|---|--|
| Facility Name: Protec Finishing Ltd.                     |                    |   |  |
| Address: 1820 Bonhill Road, Mississauga, Ontario L5T 1C4 |                    |   |  |
|  |                    |   |  |
| Phone Number:  | (905) 565-5338     | <b>Type(s) of Plating Processing at this Facility:</b>              |  |
| Fax Number:  | (905) 564-2206     | <b>Process Table A</b>  |  |
|  |                    | Zinc  | Enterprise Barrel Line,<br>Lake Barrel Line      Barrel<br>Post Treat Line |
| Number of Plating Employees at this Facility: 35         |                    |   |  |
|  |                    |   |  |
| Captive Plater (Y/N):                                    | <b>N</b>           | <b>Process Table B</b>  |  |
| Commercial Plater (Y/N):                                 | <b>Yes</b>         | Surface Conditioning of Metals for Decorative Plating               | N/A  |
|  |                    |   |  |
| Date of Assessment:                                      | <b>10-Dec-2011</b> | <b>Process Table C</b>  |  |
|  |                    | Surface Conditioning of ABS & PCABS Plastics for Decorative Plating | N/A  |
| Date of Previous Assessment:                             | <b>10-Dec-2010</b> | <b>Process Table D</b>  |  |
|  |                    | Decorative Plating  | N/A  |
|  |                    | <b>Process Table E</b>  |  |
|  |                    | Mechanical Plating  | N/A  |
|  |                    | <b>Process Table F</b>  |  |
|  |                    | Equipment   |  |
|  |                    | Process Equipment   |  |

|                                       |                              |
|---------------------------------------|------------------------------|
| Current Quality Certification(s):     | ISO 9000:2008 ISO 14001:2004 |
| Date of Re-assessment (if necessary): |                              |

| Personnel Contacted: |                         |                |  |
|----------------------|-------------------------|----------------|--|
| Name:                | Title:                  | Phone:         | Email;   |
| Ross Rice            | Assistant Plant Manager | (905) 564-5338 | <a href="mailto:ross.rice@acadiangroup.ce">ross.rice@acadiangroup.ce</a>       |
| Garry Diotte         | Q.C. Supervisor         | (905) 564-5338 | <a href="mailto:garry.diotte@acadiangroup.ca">garry.diotte@acadiangroup.ca</a> |
|                      |                         |                |  |
|                      |                         |                |  |

| Auditors/Assessors:                            |                            |                |  |
|--|----------------------------|----------------|--|
| Name:  | Company:                   | Phone:         | Email:   |
| Jim Aide - Corporate Quality Assurance Manager | Acadian Group of Companies | (905) 565-8866 | <a href="mailto:jim.aide@acadiangroup.ca">jim.aide@acadiangroup.ca</a> |
|  |                            |                |  |
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|   |       |
|---|-------|
| <b>Number of "Not Satisfactory" Findings:</b> | None: |
|   |       |

|   |      |
|---|------|
| <b>Number of "Needs Immediate Action" Findings:</b> | None |
|   |      |

|   |      |
|---|------|
| <b>Number of "Fail" Findings in the Job Audit(s):</b> | None |
|---|------|

| Special Process: Plating Process Assessment (General Facility Overview) |   |   |  |            |                              |                  |              |                        |
|---|---|---|--|------------|------------------------------|------------------|--------------|------------------------|
| Question Number   | Question  | Requirements and Guidance   | Objective Evidence   | Assessment |                              |                  | Action Taken |                        |
|   |   |   |  | N/A        | Satisfactory                 | Not Satisfactory |              | Needs Immediate Action |
| <b>Section 1 - Management Responsibility and Quality Planning</b>       |   |   |  |            |                              |                  |              |                        |
| 1.1   | Is there a dedicated and qualified plating person on-site?      | To ensure readily available expertise, there shall be a dedicated and qualified plating person on the site. This individual shall be a full-time employee and the position shall be reflected in the organization chart. A job description shall exist identifying the qualifications for the position including chemical and plating knowledge. The qualifications shall include a minimum of 5 years experience in plating and surface finishing or a combination of formal chemistry/chemical engineering education and plating experience totaling a minimum of 5 years.  | Quality Control Supervisor and Plant Manager meet the described requirement for a "qualified coating person" on site. These positions are detailed in the Quality Manual organization chart. The Training database details the required training for these personnel.  |            | Meets specified requirements |                  |              |                        |
| 1.2   | Does the plater perform advanced quality planning?              | The organization shall incorporate a documented advance quality planning procedure. A feasibility study shall be performed and internally approved for each part. Similar parts can be grouped into part families for this effort as defined by the organization. After the part approval process is approved by the customer, no process changes are allowed unless approved by the customer. The plater shall contact the customer when clarification of process changes is required. This clarification of process changes shall be documented.  | APQP is done during the Quotation process. During this process the finish requirement, processing specification, and part configuration are evaluated to confirm that we have the capability of producing the part. Should the process not be able to meet the specified requirements either a Deviation Note is add to the quotation detailing the required deviation or the customer is informed that we are unable to meet the specified requirements |            | Meets specified requirements |                  |              |                        |
| 1.3   | Are plater FMEA's up to date and reflecting current processing? | The organization shall incorporate the use of a documented Failure Mode and Effects Analysis (FMEA) procedure and ensure the FMEAs are updated to reflect current part quality status. The FMEA shall be written for each part or part family or they may be process-specific and written for each process. In any case, they shall address all process steps from part receipt to part shipment and all key plating process parameters as defined by the organization. A cross-functional team shall be used in the development of the FMEA. All characteristics, as defined by the organization and its customers, shall be identified, defined, and addressed in the FMEA. | FMEAs are on file and updated as required. PFMEAs are process specific.  |            | Meets specified requirements |                  |              |                        |

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| Question Number  | Question  | Requirements and Guidance   | Objective Evidence  | Assessment |                                     |                  |                        | Action Taken |
|  |   |   |   | N/A        | Satisfactory                        | Not Satisfactory | Needs Immediate Action |              |
| 1.4  | Are finish process control plans up to date and reflecting current processing?  | <p>The organization shall incorporate the use of a documented Control Plan procedure and ensure the Control Plans are updated to reflect current controls. The Control Plans shall be written for each part or part family or they may be process-specific and written for each process. In any case, they shall address all process steps from part receipt to part shipment and identify all equipment used and all key plating process parameters as defined by the organization. A cross-functional team, including a production operator, shall be used in the development of Control Plans, which shall be consistent with all associated documentation such as work instructions, shop travelers, and FMEAs. All special characteristics, as defined by the organization and its customers, shall be identified, defined, and addressed in the Control Plans. Sample sizes and Frequencies for evaluation of process and product characteristics shall also be addressed consistent with the minimum requirements listed in the Process Tables.</p>  | <p>Control Plans are in place for each process. Control Plans are up to date and reflect current process</p>  |            | <b>Meets specified requirements</b> |                  |                        |              |
| 1.5  | Are all plating related and referenced specifications current and available? For example: SAE, AIAG, ASTM, General Motors, Ford, and DaimlerChrysler. | <p>To ensure all customer requirements are both understood and satisfied, the organization shall have all related plating and customer referenced standards and specifications available for use and a method to ensure that they are current. Such standards and specifications include, but are not limited to, those relevant documents published by SAE, AIAG, ASTM, General Motors, Ford, and DaimlerChrysler. The organization shall have a process to ensure the timely review, distribution, and implementation of all customer and industry engineering standards and specifications and changes based on customer-required schedule. This process shall be executed as soon as possible and shall not exceed two weeks. The organization shall document this process of review and implementation, and it shall address how customer and industry documents are obtained, how they are maintained within the organization, how the current status is established, and how the relevant information is cascaded to the shop floor within the two-week period. The organization shall identify who is responsible for performing these tasks.</p> | <p>All specification are electronically controlled in the System 9000 Specification Database.<br/>           General Motors, Ford, Chrysler, DIN, ASTM, SAE USCAR, Delphi Volvo specifications are updated and are on automatic review using Lotus Notes System.<br/>           Honda, Nissan, Toyota and Mazda can only be updated when customer supplies updated specification. There are no web sites for these specifications and these companies will only issue their specifications to their suppliers.<br/>           All Quotations submitted to customers clearly identify the Issue date of the specification the parts are being quoted to.</p> |            | <b>Meets specified requirements</b> |                  |                        |              |

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|   |   |  |   | N/A        | Satisfactory                 | Not Satisfactory |              |
| 1.6   | Is there a written process specification for all active processes?                      | The plater shall have written process specifications for all active processes and identify all steps of the process including relevant operating parameters. Examples of operating parameters include process temperatures, cycle times, load rates, rectifier settings, etc. Such parameters shall not only be defined, they shall have operating tolerances as defined by the organization in order to maintain process control. All active processes should have a written process specification. These process specifications may take the form of work instructions, job card, computer-based recipes, or other similar documents.  | Process requirements are detailed on Process Control Plans. Requirements are also noted on appropriate documents used to document process parameter verification/analysis. These documents are all found in the System 9000 Released Document database. Completed documents with verification/analysis results can be found in Lab. |            | Meets specified requirements |                  |              |
| 1.7   | Has a valid product capability study been performed initially and after process change? | To demonstrate each process is capable of yielding acceptable product the organization shall perform product capability studies for the initial validation of each process, after relocation of any process equipment, and after a major rebuild of any equipment. The organization shall define what constitutes a major rebuild. Initial product capability studies shall be conducted for all plating processes per line as defined in scope of work and in accordance with customer requirements. Capability study techniques shall be appropriate for the plating product characteristics, e.g. plate thickness, corrosion resistance, etc.. Any specific customer requirements shall be met. In the absence of customer requirements, the organization shall establish acceptable ranges for measures of capability. An action plan shall exist to address the steps to be followed in case capability indices fall outside customer requirements or established ranges. | Process capabilities are performed a minimum of once per year. Studies are done on a barrel with a minimum Ppk of 1.67. Reviewed studied from all lines. All processes show a Ppk greater than 1.67   |            | Meets specified requirements |                  |              |
| 1.8   | Does the plater collect and analyze data over time, and react to this data?             | The analysis of products and processes over time can yield vital information for defect prevention efforts. The organization shall have a system to collect, analyze, and react to product or process data over time. Methods of analysis shall include ongoing trend or historical data analysis of special product or process parameters. The organization shall determine which parameters to include in such analysis.   | Here is a regular analysis of defective material. This includes a review of the process data. Where targets are not met a formal Action Plan is implemented to resolve issues.  |            | Meets specified requirements |                  |              |

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| Question Number   | Question   | Requirements and Guidance  | Objective Evidence  | Assessment |                              |                  | Action Taken |                        |
|   |  |  |   | N/A        | Satisfactory                 | Not Satisfactory |              | Needs Immediate Action |
| 1.9   | Does management review and verify bake oven logs for parts requiring hydrogen embrittlement relief every 24 hours? | Management shall review the oven monitoring systems/logs at intervals not to exceed 24 hours or prior to parts being released for shipment. The plater shall have reaction plans for non-conformances to process requirements. This is to contain, at minimum, requirements for quarantining material and notifying customer.  | Bake Logs are reviewed and signed off on a daily basis by the Assistant Plant Manager or the Q.C Supervisor. There is a reaction plan in place for non-conformances to process requirements.  |            | Meets specified requirements |                  |              |                        |
| 1.10  | Are internal assessments being completed on an annual basis, at a minimum, incorporating AIAG PSA?                 | The organization shall conduct internal assessments on an annual basis, at a minimum, using the AIAG PSA. Concerns shall be addressed in a timely manner.  | Internal Audits are performed on a regular basis a minimum of once per year by trained Internal Auditor. Audits cover all areas related to part including the quotation process, the coating process and the inspection process. Internal Audits based on CQI-11 or 12 are completed once per year by the Corporate Quality Assurance Manager. Final Product Audits are performed a minimum of once per year as part of the annual CQI Audits. There is a Third Party Audit (ICS) a minimum of once per year at all facilities as part of ISO 9000:2008 Registration. Records of both Internal and Third Party Audits are maintained in System 9000 Automotive Internal Audit database. |            | Meets specified requirements |                  |              |                        |
| 1.11  | Is there a system in place to authorize reprocessing and is it documented?   | The quality management system shall include a documented process for reprocessing that shall include authorization from a designated individual. The reprocessing procedure shall describe product characteristics for which reprocessing is allowed as well as those characteristics for which reprocessing is not permissible. All reprocessing activity shall require a new processing control sheet issued by qualified technical personnel denoting the necessary plating modifications. Records shall clearly indicate when and how any material has been reprocessed. The Quality Manager or a designee shall authorize the release of reprocessed product. | WI-0161 details process for reprocessing parts. This includes identification of personnel authorized to approve rework. As process includes use of acid pickle the coating on the nonconforming parts will be removed and the part returned to the bare metal state. As this is all part of the normal plating cycle a new process control sheet is required. Computer records document the reworked material. Should the rework be material returned from the customer (external rework) a new Shop Order is created for the parts. The exceptions are hardened steel parts. - These parts must be baked as per specified requirements prior to reprocessing. See WI-0012              |            | Meets specified requirements |                  |              |                        |

**Special Process: Plating Process Assessment (General Facility Overview)**

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|-----------------|---|--|--|------------|------------------------------|------------------|--------------|------------------------|
|                 |   |  |  | N/A        | Satisfactory                 | Not Satisfactory |              | Needs Immediate Action |
| 1.12            | Does the Quality Department review, address, and document customer and internal concerns?                 | The quality management system shall include a process for documenting, reviewing, and addressing customer concerns and any other concerns internal to the organization. A disciplined problem-solving approach shall be used.  | All Customer Complaints/concerns are documented in them Customer Management database. Customer Complaints are entered and where required an 8D is generated showing the steps taken to resolve the issue. Where internal issues are found (i.e. from analysis to Pareto analysis) corrective actions are documented.   |            | Meets specified requirements |                  |              |                        |
| 1.13            | Is there a continual improvement plan applicable to each process defined in the scope of the assessment?  | The plater shall define a process for continual improvement for each plating process identified in the scope of the PSA. The process shall be designed to bring about continual improvement in quality and productivity. Identified actions shall be prioritized and shall include timing (estimated completion dates). The organization shall show evidence of program effectiveness.   | There are continual improvement projects on file for some processes. Not all plating process has it own project. There have been several projects implemented but not documented.  |            | Meets specified requirements |                  |              |                        |
| 1.14            | Does the Quality Manager or designee authorize the disposition of material from quarantine status?        | The Quality Manager or designee is responsible for authorizing and documenting appropriate personnel to disposition quarantine material.   | All material that has been placed in the quarantine area can only be released by a member of the MRB. MRB consists of Assistant Plant Manager, Q.C Supervisor, or Operations Manager. This is detailed in SOP-0015.  |            | Meets specified requirements |                  |              |                        |
| 1.15            | Are there procedures or work instructions available to plating personnel that define the plating process? | There shall be procedures and work instructions available to plating personnel covering the plating process. These procedures or work instructions shall include methods of addressing potential emergencies (such as power failure), equipment start-up, equipment shut-down, product segregation (See 2.8), product inspection, and general operating procedures. These procedures or work instructions shall be accessible to shop floor personnel. | There are documented work instructions covering the coating process. These work instructions cover equipment start-up, equipment shutdown, product identification, product traceability, product inspection requirements and criteria, and process monitoring. These work instructions and procedures also include methods of addressing emergency situations. See WI-0225 Work Instructions are maintained in the System 9000 Document Control Database and are reviewed a minimum of once per year. All Procedures, Work Instructions and Forms are maintained as Controlled Documents. Changes to documents go through an Approval Process prior to release of the document for use. Where the employee does not have computer access hard copies of the appropriate procedures and work instructions are maintained. |            | Meets specified requirements |                  |              |                        |

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|---|--|---|---|------------|------------------------------|------------------|--------------|------------------------|
| Question Number   | Question   | Requirements and Guidance   | Objective Evidence  | Assessment |                              |                  | Action Taken |                        |
|   |  |   |   | N/A        | Satisfactory                 | Not Satisfactory |              | Needs Immediate Action |
| 1.16  | Is management providing employee training for plating?   | The organization shall provide employee training for all plating operations. All employees, including backup and temporary employees, shall be trained. Documented evidence shall be maintained showing the employees trained and the evidence shall include an assessment of the effectiveness of the training. Management shall define the qualification requirements for each function, and ongoing or follow-up training shall also be addressed.   | Formal training program in place. All training documented in Training Database. Training database details training requirements for each job function and shows when training is complete.  |            | Meets specified requirements |                  |              |                        |
| 1.17  | Is there a responsibility matrix to ensure that all key management and supervisory functions are performed by qualified personnel? | The organization shall maintain a responsibility matrix identifying all key management and supervisory functions and the qualified personnel who may perform such functions. It shall identify both primary and secondary (backup) personnel for the key functions (as defined by the organization). This matrix shall be readily available to management at all times.   | Training Database shows personnel trained for specific functions. If personnel have been trained for more than one job function this is also noted on the Training Database.  |            | Meets specified requirements |                  |              |                        |
| 1.18  | Is there a preventive maintenance program? Is maintenance data being utilized to form a predictive maintenance program?            | The organization shall have a documented preventive maintenance program for key process equipment (as identified by the organization). The program shall be a closed-loop process that tracks maintenance efforts from request to completion to assessment of effectiveness. Equipment operators shall have the opportunity to report problems, and problems shall also be handled in a closed-loop manner. Company data, e.g., downtime, quality rejects, first time-through capability, recurring maintenance work orders, and operator-reported problems, shall be used to improve the preventive maintenance program. Maintenance data shall be collected and analyzed as part of a predictive maintenance program. | There is a formal Preventive Maintenance program in place. Program is based on both the time and machine usage. Maintenance schedule reviewed a minimum of once per year and updated appropriately based on analysis of maintenance data.. There is system in place to document and follow-up on operator concerns. |            | Meets specified requirements |                  |              |                        |
| 1.19  | Has the plater developed a critical spare part list and are the parts available to minimize production disruptions?                | The plater shall develop and maintain a critical spare parts list and shall ensure the availability of such parts to minimize production disruptions.   | A key spare parts list has been set up for each facility. Each facility has also been supplied with the Key Spare Parts list of the other facilities.   |            | Meets specified requirements |                  |              |                        |



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|---|--|--|--|------------|------------------------------|------------------|--------------|------------------------|
| Question Number   | Question   | Requirements and Guidance  | Objective Evidence   | Assessment |                              |                  | Action Taken |                        |
|   |  |  |  | N/A        | Satisfactory                 | Not Satisfactory |              | Needs Immediate Action |
| <b>Section 2 - Floor and Material Handling Responsibility</b>           |  |  |  |            |                              |                  |              |                        |
| 2.1   | Does the facility ensure that the data entered in the receiving system matches the information on the customer's shipping documents?                           | Documented processes and evidence of compliance shall exist, e.g., shop travelers, work orders, etc. The facility shall have a detailed process in place to resolve receiving discrepancies.   | There are documented procedures for receipt of customer product. All product is assigned a Serialized Shop Order that is specific to each container of material received. There are documented procedures in place to resolve receiving discrepancies.   |            | Meets specified requirements |                  |              |                        |
| 2.2   | Is product clearly identified and staged throughout the plating process?   | Procedures for part and container identification help to avoid incorrect processing or mixing of lots. Appropriate location and staging within the facility also help to ensure that orders are not shipped until all required operations are performed. Customer product shall be clearly identified and staged throughout the plating process. Non-plated, in-process, and finished product shall be properly segregated and identified. All material shall be staged in a dedicated and clearly defined area. | Parts are clearly identified with Shop order which identifies part number, Lot Number (if supplied by customer) and processing requirements. There are no dedicated formal staging areas for either raw or finished product. There are general areas but these areas shrink or expand based on material in house. Computer program (LIBRA) control customer part inventory along with part status. There are safeties built into the LIBRA system that will not allow material to be processed on the wrong line or raw material being shipped back to the customer without proper authorization (MRB) |            | Meets specified requirements |                  |              |                        |
| 2.3   | Is lot traceability and integrity maintained throughout all processes?   | Out-going lot(s) shall be traceable to the incoming lot(s). The discipline of precisely identifying lots and linking all pertinent information to them enhances the ability to do root cause analysis and continual improvement.   | Lot Traceability is maintained through serialized Shop Orders. Each bin has a separate Shop Order which I generated by the LIBRA system. Shop Order is attached to each bin of material when it comes in. This Ship Order is scanned in and out of the line when the parts are processed. This allows for traceability of processing.  |            | Meets specified requirements |                  |              |                        |
| 2.4   | Are procedures adequate to prevent movement of non-conforming product into the production system?  | The control of suspect or non-conforming product is necessary to prevent inadvertent shipment or contamination of other lots. Procedures shall be adequate to prevent movement of non-conforming product into the production system. Procedures shall exist addressing proper disposition, product identification and tracking of material flow in and out of hold area. Non-conforming hold area shall be clearly designated to maintain segregation of such material.  | Nonconforming product is controlled. Nonconforming material can only be removed from Quarantine/Hold area with authorization of MRB.   |            | Meets specified requirements |                  |              |                        |
| 2.5   | Is there a system to identify trap points in the entire plating process to reduce risk of mixed parts (inappropriate, unfinished, or improperly plated parts)? | The plater shall have documented procedures to identify and monitor trap points for each process/equipment. Monitoring of potential trap points shall occur for every part changeover.   | The barrels are all checked after each load to ensure that there are no parts trapped. There is a regular PM on the Spin Dryers which includes a check of the drum to ensure that there are no trap points.  |            | Meets specified requirements |                  |              |                        |

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|---|--|---|--|------------|------------------------------|------------------|------------------------|--------------|
| Question Number   | Question   | Requirements and Guidance   | Objective Evidence   | Assessment |                              |                  |                        | Action Taken |
|   |  |   |  | N/A        | Satisfactory                 | Not Satisfactory | Needs Immediate Action |              |
| 2.6   | Are containers free of inappropriate material?   | Containers handling customer product shall be free of inappropriate material. After emptying and before re-using containers, containers shall be inspected to ensure that all parts and inappropriate material have been removed. The source of inappropriate material shall be identified and addressed. This is to ensure that no nonconforming plating parts or inappropriate material contaminate the finished lot.   | Containers are inspected prior to placing parts back into them after processing.   |            | Meets specified requirements |                  |                        |              |
| 2.7   | Is part loading specified, documented and controlled?  | Loading parameters shall be specified, documented and controlled. Examples include parts per rack and load size.  | Barrel Loading is based on both operator experience and part history. Where there is a specific requirement for clearly defined load size due to process concerns the appropriate Load size is noted in the LIBRA system and when the part is scanned in for processing the computer will notify operator of appropriate load size |            | Meets specified requirements |                  |                        |              |
| 2.8   | Are operators trained in material handling, containment action and product segregation in the event of an equipment emergency including power failure? | Unplanned or emergency downtime greatly raises the risk of improper processing. Operators shall be trained in material handling, containment action, and product segregation in the event of an equipment emergency including power failure. Training shall be documented. Work instructions specifically addressing potential types of equipment emergencies and failures shall be accessible to and understood by equipment operators. These instructions shall address containment/reaction plans related to all elements of the process. Evidence shall exist showing disposition and traceability of affected product. | All appropriate personnel have been trained emergency procedures. WI-0003 Details Action Plan for Unplanned or Emergency downtime.   |            | Meets specified requirements |                  |                        |              |
| 2.9   | Is the handling, storage and packaging adequate to preserve product quality?   | The plater's loading/unloading systems, in process handling and shipping process shall be assessed for risk of part damage or other quality concerns.   | Packaging is determined and agreed upon between customer and Acadian Group during Contract Review process..  |            | Meets specified requirements |                  |                        |              |
| 2.10  | Are plant cleanliness, housekeeping and environmental and working conditions conducive to control and improved quality?                                | Plant cleanliness, housekeeping, environmental, and working conditions shall be conducive to controlling and improving quality. The plater should evaluate such conditions and their effect on quality. A housekeeping policy shall be clearly defined and executed. The facility shall be reviewed for the following items: loose parts on floor; spillage around tanks; overall plant lighting; fumes etc.  | There is a formal housekeeping program in effect at all facilities including a monthly "Housekeeping Checklist" that is completed and forwarded to Senior Management by the Plant Manager. Housekeeping is also addressed on Start-up and Shut-down checklists.  |            | Meets specified requirements |                  |                        |              |

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|---|---|---|---|------------|------------------------------|------------------|--------------|
| Question Number   | Question  | Requirements and Guidance   | Objective Evidence  | Assessment |                              |                  | Action Taken |
|   |   |   |   | N/A        | Satisfactory                 | Not Satisfactory |              |
| 2.11  | Are process control parameters monitored per frequencies specified in Process Tables? | Process control parameters shall be monitored per frequencies specified in Process Tables. Computer monitoring equipment with alarms and alarm logs satisfy the verification requirement. A designated floor person shall verify the process parameters, e.g., by initialing a strip chart or data log.         | Process Parameters are not all monitored at frequencies noted in process tables. See appropriate Process Table                              |            | Meets specified requirements |                  |              |
| 2.12  | Are out of control/specification parameters reviewed and reacted to?                  | Are there documented reaction plans to both out of control and out of tolerance process parameters? Is there documented evidence that reaction plans are followed?  | Out of control situations are documented and appropriate steps are taken. Documented Reaction Plans in place for out of control situations. |            | Meets specified requirements |                  |              |
| 2.13  | Are In-Process / Final Test Frequencies performed as specified in Process Tables?     | In-Process / Final Test Frequencies shall be performed as specified in Process Tables. Refer to Process Tables.   | All testing is being done at intervals noted on the PCP   |            | Meets specified requirements |                  |              |
| 2.14  | Is product test equipment verified?   | Test equipment shall be verified/calibrated per applicable customer specific standard or per an applicable consensus standard, e.g., ASTM, SAE, ISO, NIST, etc. Verification/calibration results shall be internally reviewed, approved and documented.<br><br>Refer to Process Tables for frequency of checks. | All test equipment is calibrated at specified intervals. Where applicable all calibrations re done using NIST traceable standards.          |            | Meets specified requirements |                  |              |

**Section 3 - Zinc/ Zinc Alloy Plating Equipment**

| Section 3 - Zinc/ Zinc Alloy Plating Equipment |  |  |   | Assessment |                                    |                  |                        |
|--|--|--|---|------------|------------------------------------|------------------|------------------------|
| Question Number                                | Question   | Requirements and Guidance  | Objective Evidence  | N/A        | Satisfactory                       | Not Satisfactory | Needs Immediate Action |
| 3.1  | Does plating line have proper process control equipment?   | Refer to Process Table F for equipment requirements.   | See Process Table F   |            |                                    |                  |                        |
| 3.2  | Are process and testing equipment calibrations and/or verification certified, posted, and current? | A system shall be used by the plating facility to track calibration dates of equipment. This system will typically be a computerized tracking system or other notification system. Test equipment shall be verified/calibrated per applicable customer specific standard or consensus standard, e.g., ASTM, SAE, ISO, NIST, etc. Verification/calibration results shall be internally reviewed, approved and documented. | All calibration and verifications are up to date. Reviewed Calibration database as well as on line thickness tester verification logs.  |            | <b>Meet Specified Requirements</b> |                  |                        |
| 3.3  | Are barrels, racks, and baskets maintained?  | Supplier shall have preventative maintenance system that is documented and implemented.  | Ongoing PM on barrels in place  |            | <b>Meet Specified Requirements</b> |                  |                        |
| 3.4  | Are rectifiers maintained?   | Supplier shall have preventative maintenance system that is documented and implemented.  | There is a formal PM system in place for rectifiers. Rectifiers are inspected and cleaned once per year.  |            | <b>Meet Specified Requirements</b> |                  |                        |
| 3.5  | For hydrogen embrittlement relief ovens, are temperature uniformity surveys performed yearly?      | Uniformity survey must show that ovens were tested both empty and with a dense load. Parts must come up to temperature within one hour of entering oven and meet temperature tolerance specified by customer.  | Temperature profiles set up in calibration database to ensure that they are completed on a regular basis. Profile shows that material comes up to minimum temperature within one hour of commencement of bake |            | <b>Meet Specified Requirements</b> |                  |                        |
| 3.6  | For hydrogen embrittlement relief ovens, are thermocouples checked and/or replaced quarterly?      | Supplier shall have preventative maintenance system that is documented and implemented.  | Thermocouples are verified a minimum of once per quarter using a NIST traceable high temperature thermometer. Records of calibration verification are found in calibration database.                          |            | <b>Meet Specified Requirements</b> |                  |                        |

**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing \_\_\_\_\_  
**Shop Order Number:** 111118229 \_\_\_\_\_  
**Part Number:** S3170520 \_\_\_\_\_  
**Part Description:** Hinge \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** Multimatic MHGEBZ035U \_\_\_\_\_

| Question # | Job Audit Question  | Related PSA Question #    | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement   | Actual Condition (Objective Evidence)     | Pass / Fail / N/A |
|------------|---|---------------------------|----------------------------------|---|---|-------------------|
| 5.1        | Are contract review, advance quality planning, FMEA, control plans, etc., performed by qualified individuals? | 1.2<br>1.3<br>1.4<br>1.17 |                                  | APQP is done during the Quotation process. During this process the finish requirement, processing specification, and part configuration are evaluated to confirm that we have the capability of producing the part. This evaluation includes the determination as to whether specific tooling is required to produce the part. Should the process not be able to meet the specified requirements either a Deviation Note is add to the quotation detailing the required deviation or the customer is informed that we are unable to meet the specified requirements | Contact Review Files<br>Quote No: 23504AH | Pass              |

**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing \_\_\_\_\_  
**Shop Order Number:** 111118229 \_\_\_\_\_  
**Part Number:** S3170520 \_\_\_\_\_  
**Part Description:** Hinge \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** Multimatic MHGEBZ035U \_\_\_\_\_

| Question # | Job Audit Question  | Related PSA Question # | Customer or Internal Requirement   | Job (Shop) Order or Reference Documentation Requirement   | Actual Condition (Objective Evidence)                 | Pass / Fail / N/A |
|------------|---|------------------------|--|---|---|-------------------|
| 5.2        | Does the plater have the proper customer specifications for the part? | 1.5                    | Specification Multimatic MHGEBZ035U<br>Specification Date:08/31/99<br>Specification on 364 day review to ensure latest specification on hand   | All specification are electronically controlled in the System 9000 Specification Database. General Motors, Ford, Chrysler, DIN, ASTM, SAE USCAR, Delphi Volvo specifications are updated and are on automatic review using Lotus Notes System.<br>Honda, Nissan, Toyota and Mazda can only be updated when customer supplies updated specification. There are no web sites for these specifications and these companies will only issue their specifications to their suppliers.<br>All Quotations submitted to customers clearly identify the Issue date of the specification the parts are being quoted to. | Final Product Audit performed by Jim Aide On 11/21/11 | Pass              |
| 5.3        | Is a shop traveler created to meet customer requirements?             | 1.6<br>2.1             | Shop Order created for each bin of parts received. Shop Order is based on date received and the number of bins received that date. If supplied on Packing Slip Shop Order includes Customer Lot Number |   |   | Pass              |

**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing  
**Shop Order Number:** 111118229  
**Part Number:** S3170520  
**Part Description:** Hinge  
**Material:** Steel  
**Plating Requirements:** Multimatic MHGEBZ035U

| Question # | Job Audit Question  | Related PSA Question # | Customer or Internal Requirement   | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence) | Pass / Fail / N/A |
|------------|---|------------------------|--|---|---------------------------------------|-------------------|
| 5.4        | Is material identification (part numbers, lot numbers, contract numbers, etc.) maintained throughout the plating process? | 2.2<br>2.3<br>2.4      | Shop Order created for each bin of parts received. Shop Order is based on date received and the number of bins received that date. If supplied on Packing Slip Shop Order includes Customer Lot Number | Shop Order with parts.                                  | Shop Order with parts.                | Pass              |
| 5.5        | Is there documented evidence of Receiving Inspection?   | 2.1                    | Attach Shop Order to Bin of parts to show that parts have passed Incoming Inspection requirements.   | Shop Order with parts.                                  | Shop Order with parts.                | Pass              |
| 5.6        | Are the Loading / Racking requirements identified?  | 1.6<br>2.7<br>2.9      | Where required load sizes and appropriate data is entered on Libra System.   | Libra System  | Libra System                          | Pass              |

**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing \_\_\_\_\_  
**Shop Order Number:** 111118229 \_\_\_\_\_  
**Part Number:** S3170520 \_\_\_\_\_  
**Part Description:** Hinge \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** Multimatic MHGEBZ035U \_\_\_\_\_

| Question # | Job Audit Question   | Related PSA Question #            | Customer or Internal Requirement           | Job (Shop) Order or Reference Documentation Requirement                       | Actual Condition (Objective Evidence)  | Pass / Fail / N/A |
|------------|--|-----------------------------------|--|---|--|-------------------|
| 5.7        | Is the proper procedure or process specification used? Refer to Process Tables for specific parameters. List parameters that were verified in this audit in the spaces provided below. | 1.5<br>1.6<br>2.1<br>2.11<br>2.13 | Toyota Specification<br>TSH6524G-BC BARREL | Processing Code noted on Shop Order corresponds to specification requirement. | Quotation reviewed and part has been quoted to specification on file. Specification date part quoted to is shown on Quote. reviewed and found to be latest issue. (08/31/99)   | Pass              |
|            | Solution Concentrations  |                                   |  | Solution Analysis Log   | All solution concentrations performed as noted on PCP Acid concentration which is checked once per day instead of once per shift as per AIAG CQI-11. Zinc Metal in Acid Zinc checked once per week, AIAG CQI-11 states once per day. | Pass              |



**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing \_\_\_\_\_  
**Shop Order Number:** 111118229 \_\_\_\_\_  
**Part Number:** S3170520 \_\_\_\_\_  
**Part Description:** Hinge \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** Multimatic MHGEBZ035U \_\_\_\_\_

| Question # | Job Audit Question                            | Related PSA Question #                                  | Customer or Internal Requirement   | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence)  | Pass / Fail / N/A |
|------------|---|---|--|---|--|-------------------|
|            | In-process inspection requirements            |   |  | In process Inspection Log                               | All inprocess inspections were performed in accordance with PCP and AIAG CQI-11 requirements | Pass              |
|            |   |   |  |   |  |                   |
|            |   |   |  |   |  |                   |
| 5.8        | What are the product inspection requirements? | 2.13  | Each part may have one or more requirements determined by the plating specification. Parts must meet each requirement. List each requirement below and validate. |   |  |                   |
| 5.8.1      | Requirement: Plate Thickness                  |   |  |   |  |                   |
|            | Test Method:                                  | Eddy Current  |  |   |  |                   |
|            | Test frequency or quantity:                   | One part/barrel   |  |   |  |                   |
|            | Selection of samples:                         | Sample of bin of parts selected for Final Product Audit |  |   |  |                   |
|            | Specification:                                | TSH6524G-BC BARREL                                      |  |   |  |                   |

**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing \_\_\_\_\_  
**Shop Order Number:** 111118229 \_\_\_\_\_  
**Part Number:** S3170520 \_\_\_\_\_  
**Part Description:** Hinge \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** Multimatic MHGEBZ035U \_\_\_\_\_

| Question # | Job Audit Question   | Related PSA Question #  | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence)           | Pass / Fail / N/A |
|------------|--|---|----------------------------------|---|---|-------------------|
|            | Test results   | Two parts checked<br>Average of 0.00052, 0.00046<br>(Minimum requirement 0.00032) |                                  |   |   | Pass              |
| 5.8.2      | Requirement: Corrosion Resistance                          |   |                                  |   |   |                   |
|            | Test Method:   | ASTM B117   |                                  |   |   |                   |
|            | Test frequency or quantity:                                | One Representative part per week.   |                                  |   |   |                   |
|            | Selection of samples:                                      | Selected at time of audit   |                                  |   |   |                   |
|            | Specification:   | Multimatic MHGEBZ035U   |                                  | 72 Hours to red rust                                    | No evidence of red rust after 72 hour exposure. | Pass              |
| 5.8.3      | Requirement: Hydrogen Embrittlement Relief (if Applicable) | N/A Part did not require bake for Hydrogen embrittlement relief.                  |                                  |   |   |                   |
|            | Test Method:   |   |                                  |   |   |                   |
|            | Test frequency or quantity:                                |   |                                  |   |   |                   |
|            | Selection of samples:                                      |   |                                  |   |   |                   |
|            | Specification:   |   |                                  |   |   |                   |

**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing \_\_\_\_\_  
**Shop Order Number:** 111118229 \_\_\_\_\_  
**Part Number:** S3170520 \_\_\_\_\_  
**Part Description:** Hinge \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** Multimatic MHGEBZ035U \_\_\_\_\_

| Question # | Job Audit Question          | Related PSA Question #   | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence)   | Pass / Fail / N/A |
|------------|-----------------------------|--|----------------------------------|---|---|-------------------|
| 5.8.4      | Requirement: Adhesion Test  |  |                                  |   |   |                   |
|            | Test frequency or quantity: | Representative parts are tested for adhesion minimum once per week per plating type. |                                  |   |   |                   |
|            | Selection of samples:       | Sample of bin of parts selected for Final Product Audit                              |                                  |   |   |                   |
|            | Specification:              | Multimatic MHGEBZ035U  |                                  |   |   |                   |
|            | Results                     | No loss of adhesion.   |                                  |   | Adhesion. After exposing coated parts to 220 ± 5°C for 30 ± 5 minutes and quench in water at room temperature the coating showed good adhesion to base material. There was evidence of blistering or flaking. | Pass              |

**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing  
**Shop Order Number:** 111118229  
**Part Number:** S3170520  
**Part Description:** Hinge  
**Material:** Steel  
**Plating Requirements:** Multimatic MHGEBZ035U

| Question # | Job Audit Question                          | Related PSA Question # | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence) | Pass / Fail / N/A |
|------------|---|------------------------|----------------------------------|---|---------------------------------------|-------------------|
| 5.8.5      | Requirement: Alloy (if Applicable)          | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                 |                        |                                  |   |                                       |                   |
|            | Selection of samples:                       |                        |                                  |   |                                       |                   |
|            | Specification:                              |                        |                                  |   |                                       |                   |
|            | Test results                                |                        |                                  |   |                                       | Pass              |
| 5.8.6      | Requirement: Torque Tension (if Applicable) | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                 |                        |                                  |   |                                       |                   |
|            | Selection of samples:                       |                        |                                  |   |                                       |                   |
|            | Specification:                              |                        |                                  |   |                                       |                   |
| 5.8.7      | Requirement: Appearance (Decorative)        | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                 |                        |                                  |   |                                       |                   |
|            | Selection of samples:                       |                        |                                  |   |                                       |                   |
|            | Specification:                              |                        |                                  |   |                                       |                   |
| 5.8.8      | Requirement: S.T.E.P. (Decorative)          | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                 |                        |                                  |   |                                       |                   |
|            | Selection of samples:                       |                        |                                  |   |                                       |                   |
|            | Specification:                              |                        |                                  |   |                                       |                   |

**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing \_\_\_\_\_  
**Shop Order Number:** 111118229 \_\_\_\_\_  
**Part Number:** S3170520 \_\_\_\_\_  
**Part Description:** Hinge \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** Multimatic MHGEBZ035U \_\_\_\_\_

| Question # | Job Audit Question                              | Related PSA Question # | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence) | Pass / Fail / N/A |
|------------|---|------------------------|----------------------------------|---|---------------------------------------|-------------------|
| 5.8.9      | Requirement: Pore Count/Size (Decorative)       | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                    |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                     |                        |                                  |   |                                       |                   |
|            | Selection of samples:                           |                        |                                  |   |                                       |                   |
|            | Specification:                                  |                        |                                  |   |                                       |                   |
| 5.8.10     | Requirement: Ductility by foil (Decorative)     | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                    |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                     |                        |                                  |   |                                       |                   |
|            | Selection of samples:                           |                        |                                  |   |                                       |                   |
|            | Specification:                                  |                        |                                  |   |                                       |                   |
| 5.8.11     | Requirement: Internal Stress (Decorative)       | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                    |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                     |                        |                                  |   |                                       |                   |
|            | Selection of samples:                           |                        |                                  |   |                                       |                   |
|            | Specification:                                  |                        |                                  |   |                                       |                   |
| 5.8.12     | Requirement: Thermal Cycle (Decorative Plastic) | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                    |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                     |                        |                                  |   |                                       |                   |
|            | Selection of samples:                           |                        |                                  |   |                                       |                   |
|            | Specification:                                  |                        |                                  |   |                                       |                   |

**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing  
**Shop Order Number:** 111118229  
**Part Number:** S3170520  
**Part Description:** Hinge  
**Material:** Steel  
**Plating Requirements:** Multimatic MHGEBZ035U

| Question #                                    | Job Audit Question  | Related PSA Question #    | Customer or Internal Requirement                               | Job (Shop) Order or Reference Documentation Requirement  | Actual Condition (Objective Evidence)  | Pass / Fail / N/A |
|---|---|---------------------------|--|--|--|-------------------|
| <b>Operator or Inspector Responsibilities</b> |   |                           |  |  |  |                   |
| 5.9   | Were appropriate process steps signed off?                                    | 1.4<br>2.2<br>2.3<br>2.11 | Internal requirements for Process Control and Inspection Logs. | All process check lists were signed off. A review of previous checklists shows that they have been reviewed by the appropriate personnel.  | All process check lists were signed off. A review of previous checklists shows that they have been reviewed by the appropriate personnel.            | Pass              |
| 5.10  | Were all inspection steps, as documented in the control plan performed?       | 1.2<br>1.4                | All steps detailed on Process Control plan had been completed. | Production Logs detail thickness. Inprocess logs detail in-process checks and validations. Solution analysis logs detail analysis results. | Production Logs detail thickness and alloy. Inprocess logs detail in-process checks and validations. Solution analysis logs detail analysis results. | Pass              |
| 5.11  | Were steps/operations performed that were not documented in the control plan? | 1.2<br>1.4<br>1.6         | N/A  |  |  |                   |

**Section 5 - Job Audit - Finished Product Review**

**Job Identity:** \_\_\_\_\_  
**Customer:** Anton Manufacturing  
**Shop Order Number:** 111118229  
**Part Number:** S3170520  
**Part Description:** Hinge  
**Material:** Steel  
**Plating Requirements:** Multimatic MHGEBZ035U

| Question #                    | Job Audit Question  | Related PSA Question #            | Customer or Internal Requirement                             | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence)                        | Pass / Fail / N/A |
|-------------------------------|---|-----------------------------------|--|---|--|-------------------|
| 5.12                          | If additional steps were performed, were they authorized?                                   | 1.2<br>1.4<br>1.6<br>1.11<br>1.17 | N/A  |   |  |                   |
| 5.13                          | If the order was certified, did the certification accurately reflect the process performed? | 2.11<br>2.13                      | N/A  |   |  |                   |
| 5.14                          | Was the certification signed by an authorized individual?                                   | 1.17                              | N/A  |   |  |                   |
| 5.15                          | Are the parts and containers free of foreign objects or contamination?                      | 2.6                               | View of container showed no contamination or foreign objects |   | View of container showed no contamination or foreign objects | Pass              |
| <b>Packaging Requirements</b> |   |                                   |  |   |  |                   |
| 5.16                          | Are packaging requirements identified?  | 2.9                               | Parts decanted   | Pack requirement noted on Shop Order                    | Parts decanted   | Pass              |
| 5.17                          | Are parts packaged to minimize mixed parts (parts packed over height of container)?         | 2.9                               | Parts decanted   | Parts decanted  | Parts were not packed over top of tote                       | Pass              |
| <b>Shipping Requirements</b>  |   |                                   |  |   |  |                   |
| 5.18                          | Were the parts properly identified?   | 2.3                               | Parts were identified with shop order and customer tags      | Parts were identified with shop order and customer tags | Parts were identified with shop order and customer tags      | Pass              |
| 5.19                          | Were the containers properly labeled?   | 2.3<br>2.9                        | Parts were identified with shop order and customer tags      | Parts were identified with shop order and customer tags | Parts were identified with shop order and customer tags      | Pass              |

**Section 5 - Job Audit - Finished Product Review - Lake Line plus Postreat**

**Job Identity:** \_\_\_\_\_  
**Customer:** Theta \_\_\_\_\_  
**Shop Order Number:** 111117163 \_\_\_\_\_  
**Part Number:** 10WVG002-01 \_\_\_\_\_  
**Part Description:** Upper Lock Ratchet \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** ASTM B633-FE/ZN5 TRI Yellow \_\_\_\_\_

| Question # | Job Audit Question  | Related PSA Question #    | Customer or Internal Requirement |
|------------|---|---------------------------|----------------------------------|
| 5.1        | Are contract review, advance quality planning, FMEA, control plans, etc., performed by qualified individuals? | 1.2<br>1.3<br>1.4<br>1.17 |                                  |



|     |  |                                   |  |
|-----|--|-----------------------------------|--|
| 5.2 | Does the plater have the proper customer specifications for the part?  | 1.5                               | Specification<br>ASTM B633-FE/ZN5 TRI<br>Yellow<br>Specification Date: 10/01/11<br>Specification on 90 day<br>review to ensure latest<br>specification on hand   |
| 5.3 | Is a shop traveler created to meet customer requirements?  | 1.6<br>2.1                        | Shop Order created for each bin of parts received. Shop Order is based on date received and the number of bins received that date. If supplied on Packing Slip Shop Order includes Customer Lot Number |
| 5.4 | Is material identification (part numbers, lot numbers, contract numbers, etc.) maintained throughout the plating process?  | 2.2<br>2.3<br>2.4                 | Shop Order created for each bin of parts received. Shop Order is based on date received and the number of bins received that date. If supplied on Packing Slip Shop Order includes Customer Lot Number |
| 5.5 | Is there documented evidence of Receiving Inspection?  | 2.1                               | Attach Shop Order to Bin of parts to show that parts have passed Incoming Inspection requirements.   |
| 5.6 | Are the Loading / Racking requirements identified?   | 1.6<br>2.7<br>2.9                 | Where required load sizes and appropriate data is entered on Libra System.   |
| 5.7 | Is the proper procedure or process specification used? Refer to Process Tables for specific parameters. List parameters that were verified in this audit in the spaces provided below. | 1.5<br>1.6<br>2.1<br>2.11<br>2.13 | Chrysler Specification PS-79 Code 50   |

|       |   |  |  |
|-------|---|--|--|
|       | Solution Concentrations                       |  |  |
|       | In-process inspection requirements            |  |  |
|       |   |  |  |
|       |   |  |  |
| 5.8   | What are the product inspection requirements? | 2.13   | Each part may have or specification. Parts must me |
| 5.8.1 | Requirement: Plate Thickness                  |  |  |
|       | Test Method:                                  | Eddy Current   |  |
|       | Test frequency or quantity:                   | Twp Parts  |  |
|       | Selection of samples:                         | Sample of bin of parts selected for Final Product Audit                            |  |
|       | Specification:                                | ASTM B633-FE/ZN5 TF  |  |
|       | Test results                                  | Two parts checked<br>Average of 0.000399, 0.00042<br>(Minimum requirement 0.00020) |  |
| 5.8.2 | Requirement: Corrosion Resistance             |  |  |
|       | Test Method:                                  | ASTM B117  |  |
|       | Test frequency or quantity:                   | One Representative part per week.  |  |
|       | Selection of samples:                         | Samples selected at time of audit  |  |

|       |  |  |                     |
|-------|--|--|---------------------|
|       | Specification:   | ASTM B633-<br>FE/ZN5 TRI<br>Yellow   |                     |
| 5.8.3 | Requirement: Hydrogen Embrittlement Relief (if Applicable) | N/A Part did not require bake for Hydrogen embrittlement relief.                     |                     |
|       | Test Method:   |  |                     |
|       | Test frequency or quantity:                                |  |                     |
|       | Selection of samples:                                      |  |                     |
|       | Specification:   |  |                     |
| 5.8.4 | Requirement: Adhesion Test                                 |  |                     |
|       | Test frequency or quantity:                                | Representative parts are tested for adhesion minimum once per week per plating type. |                     |
|       | Selection of samples:                                      | Sample of bin of parts selected for Final Product Audit                              |                     |
|       | Specification:   |  | ASTM B633-FE/ZN5 TF |
|       | Results  | No loss of adhesion.   |                     |
| 5.8.5 | Requirement: Alloy (if Applicable)                         | N/A  |                     |
|       | Test Method:   |  |                     |
|       | Test frequency or quantity:                                |  |                     |
|       | Selection of samples:                                      |  |                     |
|       | Specification:   |  |                     |
|       | Test results   |  |                     |
| 5.8.6 | Requirement: Torque Tension (if Applicable)                | N/A  |                     |
|       | Test Method:   |  |                     |
|       | Test frequency or quantity:                                |  |                     |
|       | Selection of samples:                                      |  |                     |
|       | Specification:   |  |                     |
| 5.8.7 | Requirement: Appearance (Decorative)                       | N/A  |                     |
|       | Test Method:   |  |                     |
|       | Test frequency or quantity:                                |  |                     |

|                                      |   |                           |  |
|--------------------------------------|---|---------------------------|--|
|                                      | Selection of samples:   |                           |  |
|                                      | Specification:  |                           |  |
| 5.8.8                                | Requirement: S.T.E.P.<br>(Decorative)   | N/A                       |  |
|                                      | Test Method:  |                           |  |
|                                      | Test frequency or quantity:   |                           |  |
|                                      | Selection of samples:   |                           |  |
|                                      | Specification:  |                           |  |
| 5.8.9                                | Requirement: Pore Count/Size<br>(Decorative)                                  | N/A                       |  |
|                                      | Test Method:  |                           |  |
|                                      | Test frequency or quantity:   |                           |  |
|                                      | Selection of samples:   |                           |  |
|                                      | Specification:  |                           |  |
| 5.8.10                               | Requirement: Ductility by foil<br>(Decorative)                                | N/A                       |  |
|                                      | Test Method:  |                           |  |
|                                      | Test frequency or quantity:   |                           |  |
|                                      | Selection of samples:   |                           |  |
|                                      | Specification:  |                           |  |
| 5.8.11                               | Requirement: Internal Stress<br>(Decorative)                                  | N/A                       |  |
|                                      | Test Method:  |                           |  |
|                                      | Test frequency or quantity:   |                           |  |
|                                      | Selection of samples:   |                           |  |
|                                      | Specification:  |                           |  |
| 5.8.12                               | Requirement: Thermal Cycle<br>(Decorative Plastic)                            | N/A                       |  |
|                                      | Test Method:  |                           |  |
|                                      | Test frequency or quantity:   |                           |  |
|                                      | Selection of samples:   |                           |  |
|                                      | Specification:  |                           |  |
| <b>Operator or Inspector Respons</b> |   |                           |  |
| 5.9                                  | Were appropriate process steps signed off?                                    | 1.4<br>2.2<br>2.3<br>2.11 | Internal requirements for Process Control and Inspection Logs. |
| 5.10                                 | Were all inspection steps, as documented in the control plan performed?       | 1.2<br>1.4                | All steps detailed on Process Control plan had been completed. |
| 5.11                                 | Were steps/operations performed that were not documented in the control plan? | 1.2<br>1.4<br>1.6         | N/A  |

|                               |   |                                   |  |
|-------------------------------|---|-----------------------------------|--|
| 5.12                          | If additional steps were performed, were they authorized?                                   | 1.2<br>1.4<br>1.6<br>1.11<br>1.17 | N/A  |
| 5.13                          | If the order was certified, did the certification accurately reflect the process performed? | 2.11<br>2.13                      | N/A  |
| 5.14                          | Was the certification signed by an authorized individual?                                   | 1.17                              | N/A  |
| 5.15                          | Are the parts and containers free of foreign objects or contamination?                      | 2.6                               | View of container showed no contamination or foreign objects |
| <b>Packaging Requirements</b> |   |                                   |  |
| 5.16                          | Are packaging requirements identified?  | 2.9                               | Bulk Pack as per Contract                                    |
| 5.17                          | Are parts packaged to minimize mixed parts (parts packed over height of container)?         | 2.9                               | Pack parts back into bin received.                           |
| <b>Shipping Requirements</b>  |   |                                   |  |
| 5.18                          | Were the parts properly identified?   | 2.3                               | Parts were identified with shop order and customer tags      |
| 5.19                          | Were the containers properly labeled?   | 2.3<br>2.9                        | Parts were identified with shop order and customer tags      |

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| Job (Shop) Order or Reference Documentation Requirement  | Actual Condition (Objective Evidence)              | Pass / Fail / N/A |
|--|--|-------------------|
| <p>APQP is done during the Quotation process. During this process the finish requirement, processing specification, and part configuration are evaluated to confirm that we have the capability of producing the part. This evaluation includes the determination as to whether specific tooling is required to produce the part. Should the process not be able to meet the specified requirements either a Deviation Note is add to the quotation detailing the required deviation or the customer is informed that we are unable to meet the specified requirements</p> | <p>Contact Review Files<br/>Quote No.: 048773A</p> | <p>Pass</p>       |

|  |  |             |
|--|--|-------------|
| <p>All specifications are electronically controlled in the System 9000 Specification Database.</p> <p>General Motors, Ford, Chrysler, DIN, ASTM, SAE USCAR, Delphi Volvo specifications are updated and are on automatic review using Lotus Notes System.</p> <p>Honda, Nissan, Toyota and Mazda can only be updated when customer supplies updated specification. There are no web sites for these specifications and these companies will only issue their specifications to their suppliers.</p> <p>All Quotations submitted to customers clearly identify the Issue date of the specification the parts are being quoted to.</p> | <p>Review of Specification database. Final Product Audit performed by Jim Aide on 11/21/11</p> | <p>Pass</p> |
|  |  | <p>Pass</p> |
| <p>Shop Order with parts.</p>  | <p>Shop Order with parts.</p>  | <p>Pass</p> |
| <p>Shop Order with parts.</p>  | <p>Shop Order with parts.</p>  | <p>Pass</p> |
| <p>Libra System</p>  | <p>Libra System</p>  | <p>Pass</p> |
| <p>Processing Code noted on Shop Order corresponds to specification requirement.</p>   | <p>Specification reviewed and found to be latest issue.<br/>(09/28/10)</p>                     | <p>Pass</p> |

|                           |  |      |
|---------------------------|--|------|
| Solution Analysis Log     | All solution concentrations performed as noted on PCP Acid concentration which is checked once per day instead of once per shift as per AIAG CQI-11. Zinc Metal in Acid Zinc checked once per week, AIAG CQI-11 states once per day. | Pass |
| In process Inspection Log | All inprocess inspections were performed in accordance with PCP and AIAG CQI-11 requirements   | Pass |
|                           |  |      |
|                           |  |      |
|                           |  |      |

one or more requirements determined by the plating set each requirement. List each requirement below and validate.

|           |  |      |
|-----------|--|------|
|           |  |      |
|           |  |      |
|           |  |      |
|           |  |      |
| RI Yellow |  |      |
|           |  | Pass |
|           |  |      |
|           |  |      |
|           |  |      |







|   |  |      |
|---|--|------|
|   |  |      |
|   |  |      |
|   |  |      |
|   | View of container showed no contamination or foreign objects | Pass |
|   |  |      |
| Pack requirement noted on Shop Order                    | Parts bulk packed  | Pass |
| Pack parts back into bin received.                      | Parts were not packed over top of bin                        | Pass |
|   |  |      |
| Parts were identified with shop order and customer tags | Parts were identified with shop order and customer tags      | Pass |
| Parts were identified with shop order and customer tags | Parts were identified with shop order and customer tags      | Pass |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:** \_\_\_\_\_  
**Customer:** Alfield \_\_\_\_\_  
**Shop Order Number:** 111118002 \_\_\_\_\_  
**Part Number:** FM-BRO83000AD \_\_\_\_\_  
**Part Description:** Deck lid Bracket \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** GMW30448K240/120X \_\_\_\_\_

| Question # | Job Audit Question  | Related PSA Question #    | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement   | Actual Condition (Objective Evidence)      | Pass / Fail / N/A |
|------------|---|---------------------------|----------------------------------|---|--|-------------------|
| 5.1        | Are contract review, advance quality planning, FMEA, control plans, etc., performed by qualified individuals? | 1.2<br>1.3<br>1.4<br>1.17 |                                  | APQP is done during the Quotation process. During this process the finish requirement, processing specification, and part configuration are evaluated to confirm that we have the capability of producing the part. This evaluation includes the determination as to whether specific tooling is required to produce the part. Should the process not be able to meet the specified requirements either a Deviation Note is add to the quotation detailing the required deviation or the customer is informed that we are unable to meet the specified requirements | Contact Review Files<br>Quote No.: 044017B | Pass              |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:**

**Customer:** Alfield  
**Shop Order Number:** 111118002  
**Part Number:** FM-BRO83000AD  
**Part Description:** Deck lid Bracket  
**Material:** Steel  
**Plating Requirements:** GMW30448K240/120X

| Question # | Job Audit Question  | Related PSA Question # | Customer or Internal Requirement   | Job (Shop) Order or Reference Documentation Requirement   | Actual Condition (Objective Evidence)   | Pass / Fail / N/A |
|------------|---|------------------------|--|---|---|-------------------|
| 5.2        | Does the plater have the proper customer specifications for the part? | 1.5                    | Specification PS-79 Code 50<br>Specification Date: 09/28/10<br>Specification on 90 day review to ensure latest specification on hand | All specification are electronically controlled in the System 9000 Specification Database. General Motors, Ford, Chrysler, DIN, ASTM, SAE USCAR, Delphi Volvo specifications are updated and are on automatic review using Lotus Notes System. Honda, Nissan, Toyota and Mazda can only be updated when customer supplies updated specification. There are no web sites for these specifications and these companies will only issue their specifications to their suppliers. All Quotations submitted to customers clearly identify the Issue date of the specification the parts are being quoted to. | Review of Specification database. Final Product Audit performed by Jim Aide on 11/02/10 | Pass              |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:**

**Customer:** Alfield  
**Shop Order Number:** 111118002  
**Part Number:** FM-BRO83000AD  
**Part Description:** Deck lid Bracket  
**Material:** Steel  
**Plating Requirements:** GMW30448K240/120X

| Question # | Job Audit Question  | Related PSA Question # | Customer or Internal Requirement   | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence) | Pass / Fail / N/A |
|------------|---|------------------------|--|---|---------------------------------------|-------------------|
| 5.3        | Is a shop traveler created to meet customer requirements?   | 1.6<br>2.1             | Shop Order created for each bin of parts received. Shop Order is based on date received and the number of bins received that date. If supplied on Packing Slip Shop Order includes Customer Lot Number |   |                                       | Pass              |
| 5.4        | Is material identification (part numbers, lot numbers, contract numbers, etc.) maintained throughout the plating process? | 2.2<br>2.3<br>2.4      | Shop Order created for each bin of parts received. Shop Order is based on date received and the number of bins received that date. If supplied on Packing Slip Shop Order includes Customer Lot Number | Shop Order with parts.                                  | Shop Order with parts.                | Pass              |
| 5.5        | Is there documented evidence of Receiving Inspection?   | 2.1                    | Attach Shop Order to Bin of parts to show that parts have passed Incoming Inspection requirements.   | Shop Order with parts.                                  | Shop Order with parts.                | Pass              |
| 5.6        | Are the Loading / Racking requirements identified?  | 1.6<br>2.7<br>2.9      | Where required load sizes and appropriate data is entered on Libra System.   | Libra System  | Libra System                          | Pass              |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:** \_\_\_\_\_  
**Customer:** Alfield \_\_\_\_\_  
**Shop Order Number:** 111118002 \_\_\_\_\_  
**Part Number:** FM-BRO83000AD \_\_\_\_\_  
**Part Description:** Deck lid Bracket \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** GMW30448K240/120X \_\_\_\_\_

| Question # | Job Audit Question   | Related PSA Question #            | Customer or Internal Requirement    | Job (Shop) Order or Reference Documentation Requirement                       | Actual Condition (Objective Evidence)  | Pass / Fail / N/A |
|------------|--|-----------------------------------|-------------------------------------|---|--|-------------------|
| 5.7        | Is the proper procedure or process specification used? Refer to Process Tables for specific parameters. List parameters that were verified in this audit in the spaces provided below. | 1.5<br>1.6<br>2.1<br>2.11<br>2.13 | General Motors<br>GMW30448K240/120X | Processing Code noted on Shop Order corresponds to specification requirement. | Specification reviewed and found to be latest issue.<br>F - 04/00/05   | Pass              |
|            | Solution Concentrations  |                                   |                                     | Solution Analysis Log   | All solution concentrations performed as noted on PCP Acid concentration which is checked once per day instead of once per shift as per AIAG CQI-11. Zinc Metal in Acid Zinc checked once per week, AIAG CQI-11 states once per day. | Pass              |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:**

**Customer:** Alfield  
**Shop Order Number:** 111118002  
**Part Number:** FM-BRO83000AD  
**Part Description:** Deck lid Bracket  
**Material:** Steel  
**Plating Requirements:** GMW30448K240/120X

| Question # | Job Audit Question                            | Related PSA Question # | Customer or Internal Requirement   | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence)  | Pass / Fail / N/A |
|------------|---|------------------------|--|---|--|-------------------|
|            | In-process inspection requirements            |                        |  | In process Inspection Log                               | All inprocess inspections were performed in accordance with PCP and AIAG CQI-11 requirements | Pass              |
|            |   |                        |  |   |  |                   |
|            |   |                        |  |   |  |                   |
| 5.8        | What are the product inspection requirements? | 2.13                   | Each part may have one or more requirements determined by the plating specification. Parts must meet each requirement. List each requirement below and validate. |   |  |                   |



**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:** \_\_\_\_\_  
**Customer:** Alfield  
**Shop Order Number:** 111118002  
**Part Number:** FM-BRO83000AD  
**Part Description:** Deck lid Bracket  
**Material:** Steel  
**Plating Requirements:** GMW30448K240/120X

| Question # | Job Audit Question                | Related PSA Question #   | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence)   | Pass / Fail / N/A |
|------------|-----------------------------------|--|----------------------------------|---|---|-------------------|
| 5.8.1      | Requirement: Plate Thickness      |  |                                  |   |   |                   |
|            | Test Method:                      | Eddy Current   |                                  |   |   |                   |
|            | Test frequency or quantity:       | Two parts  |                                  |   |   |                   |
|            | Selection of samples:             | Samples of bin of parts selected for Final Product Audit                     |                                  |   |   |                   |
|            | Specification:                    | GMW30448K240/120X  |                                  |   |   |                   |
|            | Test results                      | Two parts checked Average of 0.000399, 0.00042 (Minimum requirement 0.00020) |                                  |   |   | Pass              |
| 5.8.2      | Requirement: Corrosion Resistance |  |                                  |   |   |                   |
|            | Test Method:                      | ASTM B117  |                                  |   |   |                   |
|            | Test frequency or quantity:       | One Representative part per week.  |                                  |   |   |                   |
|            | Selection of samples:             | Sample selected at time of audit   |                                  |   |   |                   |
|            | Specification:                    | GMW30448K240 /120X   |                                  | 120 hours to white corrosion<br>240 Hours to red rust   | No evidence of White corrosion after 120 hours.<br>No evidence of red rust after 240 hour exposure. | Pass              |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:**

**Customer:** Alfield  
**Shop Order Number:** 111118002  
**Part Number:** FM-BRO83000AD  
**Part Description:** Deck lid Bracket  
**Material:** Steel  
**Plating Requirements:** GMW30448K240/120X

| Question # | Job Audit Question   | Related PSA Question #   | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence) | Pass / Fail / N/A |
|------------|--|--|----------------------------------|---|---------------------------------------|-------------------|
| 5.8.3      | Requirement: Hydrogen Embrittlement Relief (if Applicable) | N/A Part did not require bake for Hydrogen embrittlement relief.                     |                                  |   |                                       |                   |
|            | Test Method:   |  |                                  |   |                                       |                   |
|            | Test frequency or quantity:                                |  |                                  |   |                                       |                   |
|            | Selection of samples:                                      |  |                                  |   |                                       |                   |
|            | Specification:   |  |                                  |   |                                       |                   |
| 5.8.4      | Requirement: Adhesion Test                                 |  |                                  |   |                                       |                   |
|            | Test frequency or quantity:                                | Representative parts are tested for adhesion minimum once per week per plating type. |                                  |   |                                       |                   |
|            | Selection of samples:                                      | Sample of bin of parts selected for Final Product Audit                              |                                  |   |                                       |                   |
|            | Specification:   |  | GMW30448K240/120X                |   |                                       |                   |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:** \_\_\_\_\_  
**Customer:** Alfield  
**Shop Order Number:** 111118002  
**Part Number:** FM-BRO83000AD  
**Part Description:** Deck lid Bracket  
**Material:** Steel  
**Plating Requirements:** GMW30448K240/120X

| Question # | Job Audit Question | Related PSA Question # | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence)   | Pass / Fail / N/A |
|------------|--------------------|------------------------|----------------------------------|---|---|-------------------|
|            | Results            | No loss of adhesion.   |                                  |   | Adhesion. After exposing coated parts to 220 ± 5°C for 30 ± 5 minutes and quench in water at room temperature the coating showed good adhesion to base material. There was evidence of blistering or flaking. | Pass              |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:** \_\_\_\_\_  
**Customer:** Alfield \_\_\_\_\_  
**Shop Order Number:** 111118002 \_\_\_\_\_  
**Part Number:** FM-BRO83000AD \_\_\_\_\_  
**Part Description:** Deck lid Bracket \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** GMW30448K240/120X \_\_\_\_\_

| Question # | Job Audit Question                          | Related PSA Question # | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence) | Pass / Fail / N/A |
|------------|---|------------------------|----------------------------------|---|---------------------------------------|-------------------|
| 5.8.5      | Requirement: Alloy (if Applicable)          | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                 |                        |                                  |   |                                       |                   |
|            | Selection of samples:                       |                        |                                  |   |                                       |                   |
|            | Specification:                              |                        |                                  |   |                                       |                   |
|            | Test results                                |                        |                                  |   |                                       | Pass              |
| 5.8.6      | Requirement: Torque Tension (if Applicable) | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                 |                        |                                  |   |                                       |                   |
|            | Selection of samples:                       |                        |                                  |   |                                       |                   |
|            | Specification:                              |                        |                                  |   |                                       |                   |
| 5.8.7      | Requirement: Appearance (Decorative)        | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                 |                        |                                  |   |                                       |                   |
|            | Selection of samples:                       |                        |                                  |   |                                       |                   |
|            | Specification:                              |                        |                                  |   |                                       |                   |
| 5.8.8      | Requirement: S.T.E.P. (Decorative)          | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                 |                        |                                  |   |                                       |                   |
|            | Selection of samples:                       |                        |                                  |   |                                       |                   |
|            | Specification:                              |                        |                                  |   |                                       |                   |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:** \_\_\_\_\_  
**Customer:** Alfield \_\_\_\_\_  
**Shop Order Number:** 111118002 \_\_\_\_\_  
**Part Number:** FM-BRO83000AD \_\_\_\_\_  
**Part Description:** Deck lid Bracket \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** GMW30448K240/120X \_\_\_\_\_

| Question # | Job Audit Question                              | Related PSA Question # | Customer or Internal Requirement | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence) | Pass / Fail / N/A |
|------------|---|------------------------|----------------------------------|---|---------------------------------------|-------------------|
| 5.8.9      | Requirement: Pore Count/Size (Decorative)       | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                    |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                     |                        |                                  |   |                                       |                   |
|            | Selection of samples:                           |                        |                                  |   |                                       |                   |
|            | Specification:                                  |                        |                                  |   |                                       |                   |
| 5.8.10     | Requirement: Ductility by foil (Decorative)     | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                    |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                     |                        |                                  |   |                                       |                   |
|            | Selection of samples:                           |                        |                                  |   |                                       |                   |
|            | Specification:                                  |                        |                                  |   |                                       |                   |
| 5.8.11     | Requirement: Internal Stress (Decorative)       | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                    |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                     |                        |                                  |   |                                       |                   |
|            | Selection of samples:                           |                        |                                  |   |                                       |                   |
|            | Specification:                                  |                        |                                  |   |                                       |                   |
| 5.8.12     | Requirement: Thermal Cycle (Decorative Plastic) | N/A                    |                                  |   |                                       |                   |
|            | Test Method:                                    |                        |                                  |   |                                       |                   |
|            | Test frequency or quantity:                     |                        |                                  |   |                                       |                   |
|            | Selection of samples:                           |                        |                                  |   |                                       |                   |
|            | Specification:                                  |                        |                                  |   |                                       |                   |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:** \_\_\_\_\_  
**Customer:** Alfield \_\_\_\_\_  
**Shop Order Number:** 111118002 \_\_\_\_\_  
**Part Number:** FM-BRO83000AD \_\_\_\_\_  
**Part Description:** Deck lid Bracket \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** GMW30448K240/120X \_\_\_\_\_

| Question #                                    | Job Audit Question  | Related PSA Question #            | Customer or Internal Requirement                               | Job (Shop) Order or Reference Documentation Requirement   | Actual Condition (Objective Evidence)   | Pass / Fail / N/A |
|---|---|-----------------------------------|--|---|---|-------------------|
| <b>Operator or Inspector Responsibilities</b> |   |                                   |  |   |   |                   |
| 5.9   | Were appropriate process steps signed off?                                    | 1.4<br>2.2<br>2.3<br>2.11         | Internal requirements for Process Control and Inspection Logs. | All process check lists were signed off. A review of previous checklists shows that they have been reviewed by the appropriate personnel.                 | All process check lists were signed off. A review of previous checklists shows that they have been reviewed by the appropriate personnel.                 | Pass              |
| 5.10  | Were all inspection steps, as documented in the control plan performed?       | 1.2<br>1.4                        | All steps detailed on Process Control plan had been completed. | Production (Libra System) Logs detail thickness. Inprocess logs detail in-process checks and validations. Solution analysis logs detail analysis results. | Production (Libra System) Logs detail thickness. Inprocess logs detail in-process checks and validations. Solution analysis logs detail analysis results. | Pass              |
| 5.11  | Were steps/operations performed that were not documented in the control plan? | 1.2<br>1.4<br>1.6                 | N/A  |   |   |                   |
| 5.12  | If additional steps were performed, were they authorized?                     | 1.2<br>1.4<br>1.6<br>1.11<br>1.17 | N/A  |   |   |                   |

**Section 5 - Job Audit - Finished Product Review - Lake Line**

**Job Identity:** \_\_\_\_\_  
**Customer:** Alfield \_\_\_\_\_  
**Shop Order Number:** 111118002 \_\_\_\_\_  
**Part Number:** FM-BRO83000AD \_\_\_\_\_  
**Part Description:** Deck lid Bracket \_\_\_\_\_  
**Material:** Steel \_\_\_\_\_  
**Plating Requirements:** GMW30448K240/120X \_\_\_\_\_

| Question #                    | Job Audit Question  | Related PSA Question # | Customer or Internal Requirement                             | Job (Shop) Order or Reference Documentation Requirement | Actual Condition (Objective Evidence)                        | Pass / Fail / N/A |
|-------------------------------|---|------------------------|--|---|--|-------------------|
| 5.13                          | If the order was certified, did the certification accurately reflect the process performed? | 2.11<br>2.13           | N/A  |   |  |                   |
| 5.14                          | Was the certification signed by an authorized individual?                                   | 1.17                   | N/A  |   |  |                   |
| 5.15                          | Are the parts and containers free of foreign objects or contamination?                      | 2.6                    | View of container showed no contamination or foreign objects |   | View of container showed no contamination or foreign objects | Pass              |
| <b>Packaging Requirements</b> |   |                        |  |   |  |                   |
| 5.16                          | Are packaging requirements identified?  | 2.9                    | Bulk Pack as per Contract                                    | Pack requirement noted on Shop Order                    | Parts bulk packed  | Pass              |
| 5.17                          | Are parts packaged to minimize mixed parts (parts packed over height of container)?         | 2.9                    | Pack parts back into bin received.                           | Pack parts back into bin received.                      | Parts were not packed over top of bin                        | Pass              |
| <b>Shipping Requirements</b>  |   |                        |  |   |  |                   |
| 5.18                          | Were the parts properly identified?   | 2.3                    | Parts were identified with shop order and customer tags      | Parts were identified with shop order and customer tags | Parts were identified with shop order and customer tags      | Pass              |
| 5.19                          | Were the containers properly labeled?   | 2.3<br>2.9             | Parts were identified with shop order and customer tags      | Parts were identified with shop order and customer tags | Parts were identified with shop order and customer tags      | Pass              |





|            |                 |   |                     |         |   |     |  |  |  |   |
|------------|-----------------|---|---------------------|---------|---|-----|--|--|--|---|
| A3.1       | 1.4; 2.11; 2.13 | Temperature                             | Automatic           | 1/Shift | Temperature verified every four hours from computer readout from temperature probes. Calibration of temperature probes verified once per month.                         |     | Meet specified requirements  |  |  |   |
| A3.2       | 1.4; 2.11; 2.13 | Time                                    | Automatic           | 1/Shift |   |     | Meet specified requirements  |  |  |   |
| A3.3       | 1.4; 2.11; 2.13 | Current/Voltage                         | Automatic           | 1/Shift | Voltage is monitored and recorded. Amperage is not monitored.   |     | Meet specified requirements  |  |  |   |
| A3.4       |                 | Chloride Concentration                  | Manual              | 1/Day   | Solution analysis performed once per day. Results documented and retained on file.. Out of range situations are reviewed and the appropriate reaction plan implemented. |     | Meet specified requirements  |  |  |   |
| A3.5       |                 | pH                                      | Automatic or Manual | 1/Shift | pH is checked once per shift  |     | Meet specified requirements  |  |  |   |
| A3.6       |                 | Plating Test Cell (Hull)                | Manual              | 1/Day   | Hull Cell testing done minimum of once week on Zinc Plating solutions   |     | Contacted Stuart Dodds of Atotech and Abbas from Enthone Inc.. As per letters Hull cell testing once per week is sufficient. Enthone and Atotech performing Hull Cell tests on all Zinc solutions supplied by them a minimum of once per week. |  |  |   |
| A3.7       |                 | Metal Concentration(s)                  | Automatic or Manual | 1/Day   | Zinc Analysis performed once per week   |     | Metal concentration done on zinc baths once per week. The zinc values do not fluctuate and once a week analysis is sufficient.   |  |  | Reviewed analysis result for twelve month period. There is no significant changes in zinc concentration that would not be found by weekly analysis. |
| A3.8       |                 | Buffer (Ammonia / Boric Acid per TDS)   | Manual              | 1/Day   |   | N/A | N/A  |  |  |   |
| A3.9       |                 | Filtration                              | Continuous          | 1/Shift |   |     | Check of filters done on a daily basis.  |  |  |   |
| A3.10      |                 | Agitation (Rack only - others optional) | Continuous          | 1/Shift |   | N/A | N/A  |  |  |   |
| A3.11      |                 | Rinse                                   | Per Process Sheet   | 1/Shift | Rinse overflows are verified a minimum of once per shift.   |     | Meet specified requirements  |  |  |   |
| <b>4.0</b> |                 | <b>Alkaline Plating Bath</b>            |                     |         |   |     |  |  |  |   |
|            |                 | Type:                                   |                     |         |   |     |  |  |  |   |
|            |                 | Size, volume:                           |                     |         |   |     |  |  |  |   |
|            |                 | Proprietary name:                       |                     |         |   |     |  |  |  |   |
|            |                 | Chemical supplier:                      |                     |         |   |     |  |  |  |   |
| A4.1       | 1.4; 2.11; 2.13 | Temperature                             |                     |         |   |     |  |  |  |   |
| A4.2       | 1.4; 2.11; 2.13 | Time                                    |                     |         |   |     |  |  |  |   |
| A4.3       | 1.4; 2.11; 2.13 | Current/Voltage                         |                     |         |   |     |  |  |  |   |
| A4.4       |                 | Caustic Concentration                   |                     |         |   |     |  |  |  |   |
| A4.5       |                 | Plating Test Cell (Hull)                |                     |         |   |     |  |  |  |   |
| A4.6       |                 | Metal Concentration(s)                  |                     |         |   |     |  |  |  |   |
| A4.7       |                 | Filtration                              |                     |         |   |     |  |  |  |   |
| A4.8       |                 | Rinse                                   |                     |         |   |     |  |  |  |   |
| <b>5.0</b> |                 | <b>Hydrogen Embrittlement Relief</b>    |                     |         |   |     |  |  |  |   |
|            | 3.6             | Oven Type:                              |                     |         | Forced Air Convection   |     |  |  |  |   |

|            |                 |   |                             |                          |   |     |                             |  |  |
|------------|-----------------|---|-----------------------------|--------------------------|---|-----|-----------------------------|--|--|
|            | 3.6             | Oven Temperature:   |                             |                          | Set as per specified requirement.<br>Normal operating set point 400 F   |     |                             |  |  |
| <b>6.0</b> |                 | <b>Passivates</b>   |                             |                          |   |     |                             |  |  |
|            |                 | Type:   | As per process Control Plan |                          |   |     |                             |  |  |
|            |                 | Size, volume:   |                             |                          |   |     |                             |  |  |
|            |                 | Proprietary name:   | As per process Control Plan |                          |   |     |                             |  |  |
|            |                 | Chemical supplier:  | As per process Control Plan |                          |   |     |                             |  |  |
| A6.1       |                 | Acid Activation   | Per Control Plan            |                          |   |     |                             |  |  |
| A6.1.1     |                 | - Concentration   | Automatic or Manual         | 1/Shift                  | Analysis once per shift   |     |                             |  |  |
| A6.1.2     | 1.4; 2.11; 2.13 | - Time  | Automatic or Manual         | 1/Shift                  | Automatic   |     |                             |  |  |
| A6.2       |                 | Passivate   | Per Control Plan            | N/A                      |   |     |                             |  |  |
| A6.2.1     |                 | - Concentration   | Automatic or Manual         | 1/Shift                  | Analysis once per shift   |     |                             |  |  |
| A6.2.2     | 1.4; 2.11; 2.13 | - Temperature   | Automatic or Manual         | 1/Shift                  | Verified twice per shift  |     | Meet specified requirements |  |  |
| A6.2.3     | 1.4; 2.11; 2.13 | - Time  | Automatic or Manual         | 1/Shift                  | Fixed Machine cycle time  |     |                             |  |  |
| A6.2.4     |                 | - pH  | Automatic or Manual         | 1/Shift                  | Checked once per shift  |     | Meet specified requirements |  |  |
| A6.2.5     |                 | - Agitation   | Automatic or Manual         | 1/Shift                  | Verified once per shift   |     | Meet specified requirements |  |  |
| A6.2.6     |                 | - Contamination (e.g. Fe, Zn)   | Per Process Sheet           | 1/week                   | Iron checked daily in house and Zinc checked once per month by Supplier |     | Meet specified requirements |  |  |
| A6.3       |                 | Rinse   | Per Process Sheet           | 1/Shift                  | Verified once per shift   |     | Meet specified requirements |  |  |
| A6.4       |                 | Dry   | Per Tech Data Sheet         | Per Process Sheet        | Verified once per shift   |     | Meet specified requirements |  |  |
| <b>7.0</b> |                 | <b>Supplemental Treatments - Sealers and Torque Tension Modifiers</b> |                             |                          |   |     |                             |  |  |
| A7.1       |                 | Concentration   | Automatic or Manual         | Per Control Plan and TDS | Verified once per shift   |     | Meet specified requirements |  |  |
| A7.2       | 1.4; 2.11; 2.13 | Solution Temperature  | Automatic                   | Per Control Plan and TDS | Verified twice per shift  |     | Meet specified requirements |  |  |
| A7.3       | 1.4; 2.11; 2.13 | Time  | Automatic or Manual         | Per Control Plan and TDS |   |     |                             |  |  |
| A7.4       |                 | pH  | Automatic or Manual         | Per Control Plan and TDS | Verified once per shift   |     | Meet specified requirements |  |  |
| A7.5       |                 | Drying Temperature  | Automatic                   | Per Control Plan and TDS | Dryer temperature verified twice per shift.                             |     | Meet specified requirements |  |  |
| A7.6       |                 | Spin Speed  | Automatic                   | Per Control Plan and TDS |   | N/A |                             |  |  |
| A7.7       |                 | Agitation   | Automatic or Manual         | Per Control Plan and TDS | Verified once per shift   |     | Meet specified requirements |  |  |

**PROCESS TABLE A - Zinc - Zinc Alloy Plating - Lake Line**

| <p>All requirements given below are subordinate to customer specific requirements.</p> <p>The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. When performing the job audit, the auditor shall verify plater is conforming to customer requirements.</p> |                        |  |                     |                   |   | Assessment |                             |                  |                        | Actions Taken |
|---|------------------------|--|---------------------|-------------------|---|------------|-----------------------------|------------------|------------------------|---------------|
|   |                        |  |                     |                   |   | N/A        | Satisfactory                | Not Satisfactory | Needs Immediate Action |               |
| ITEM #  | Related PSA Question # | Category/Process Steps                           | Control             | Monitoring        |   |            |                             |                  |                        |               |
| <b>1.0</b>  |                        | <b>Metal Cleaning</b>                            |                     |                   |   |            |                             |                  |                        |               |
|   |                        | Type: Alkaline Soak Cleaner and Electro Cleaners |                     |                   |   |            |                             |                  |                        |               |
|   |                        | Size, volume:                                    |                     |                   |   |            |                             |                  |                        |               |
|   |                        | Proprietary name:                                |                     |                   |   |            |                             |                  |                        |               |
|   |                        | <b>Westbrook Technologies:</b>                   |                     |                   |   |            |                             |                  |                        |               |
| A1.1  | 1.4; 2.11; 2.13        | Temperature                                      | Automatic           | 11/Shift          | Temperature of cleaners verified every four hours from computer readout from temperature probes. Calibration of temperature probes verified once per month.             |            | Meet specified requirements |                  |                        |               |
| A1.2  | 1.4; 2.11; 2.13        | Concentration                                    | Automatic or Manual | 1/Day             | Solution analysis performed once per day. Results documented and retained on file.. Out of range situations are reviewed and the appropriate reaction plan implemented. |            | Meet specified requirements |                  |                        |               |
| A1.3  | 1.4; 2.11; 2.13        | Time   | Per Tech Data Sheet | Per Process Sheet | Time is fixed on all lines.   |            | Meet specified requirements |                  |                        |               |
| A1.4  |                        | Agitation  | Per Tech Data Sheet | Per Process Sheet | Rotation of barrel provides agitation.  |            | Meet specified requirements |                  |                        |               |
| A1.5  | 1.4; 2.11; 2.13        | Current/Voltage (As applicable)                  | Automatic           | 1/Shift           | Current is constant where applicable  |            | Amperage is monitored.      |                  |                        |               |
| A1.6  |                        | Solution Level                                   | Automatic or Manual | 1/Shift           | Solution Level is verified a minimum of once per shift.   |            | Meet specified requirements |                  |                        |               |
| A1.7  |                        | Rinse  | Process Sheet       | 1/Shift           | Rinse overflows are verified a minimum of once per shift.   |            | Meet specified requirements |                  |                        |               |

**PROCESS TABLE A - Zinc - Zinc Alloy Plating - Lake Line**

| All requirements given below are subordinate to customer specific requirements.<br>The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. When performing the job audit, the auditor shall verify plater is conforming to customer requirements. |                        |  |                     |            | Assessment  |     |  |                  | Actions Taken |
|--|------------------------|--|---------------------|------------|---|-----|--|------------------|---------------|
|  |                        |  |                     |            | Audit Findings  | N/A | Satisfactory   | Not Satisfactory |               |
| ITEM #   | Related PSA Question # | Category/Process Steps                           | Control             | Monitoring |   |     |  |                  |               |
| <b>2.0</b>   |                        |  |                     |            |   |     |  |                  |               |
|  |                        | <b>Acid</b>                                      |                     |            |   |     |  |                  |               |
|  |                        | <b>Type:</b>                                     |                     |            | Muriatic (Hydrochloric) Acid  |     |  |                  |               |
|  |                        | <b>Size, volume:</b>                             |                     |            |   |     |  |                  |               |
|  |                        | <b>Proprietary name:</b>                         |                     |            | Muriatic (Hydrochloric) Acid  |     |  |                  |               |
|  |                        | <b>Chemical supplier:</b>                        |                     |            | UBA   |     |  |                  |               |
| A2.1   | 1.4; 2.11; 2.13        | Temperature - Optional                           | Automatic           | 1/Shift    | N/A   |     |  |                  |               |
| A2.2   | 1.4; 2.11; 2.13        | Concentration                                    | Automatic or Manual | 1/Shift    | Acid concentration is only checked once per day not once per shift. |     | Acid checked once per day. Review of past six months records shows no readings outside normal operating range. |                  |               |
| A2.3   | 1.4; 2.11; 2.13        | Time (Less than 10 Minutes or Customer Specific) | Automatic           | Continuous | Fixed Machine cycle time  |     | Meet specified requirements  |                  |               |
| A2.4   |                        | Inhibitor  | Per Tech Data Sheet | N/A        | None Used   |     |  |                  |               |
| A2.5   |                        | Solution Level                                   | Automatic or Manual | 1/Shift    | Solution Level is verified a minimum of once per shift.             |     | Meet specified requirements  |                  |               |
| A2.6   |                        | Rinse  | Process Sheet       | 1/Shift    | Rinse overflows are verified a minimum of once per shift.           |     | Meet specified requirements  |                  |               |

**PROCESS TABLE A - Zinc - Zinc Alloy Plating - Lake Line**

| <p>All requirements given below are subordinate to customer specific requirements.</p> <p>The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. When performing the job audit, the auditor shall verify plater is conforming to customer requirements.</p> |                        |                          |                     |            | Assessment  |     |                             |                  | Actions Taken |
|---|------------------------|--------------------------|---------------------|------------|---|-----|-----------------------------|------------------|---------------|
|   |                        |                          |                     |            | Audit Findings  | N/A | Satisfactory                | Not Satisfactory |               |
| ITEM #  | Related PSA Question # | Category/Process Steps   | Control             | Monitoring |   |     |                             |                  |               |
| <b>3.0</b>  |                        | <b>Acid Plating Bath</b> |                     |            |   |     |                             |                  |               |
|   |                        | Type:                    |                     |            |   |     |                             |                  |               |
|   |                        | Size, volume:            |                     |            |   |     |                             |                  |               |
|   |                        | Proprietary name:        |                     |            |   |     |                             |                  |               |
|   |                        | Chemical supplier:       |                     |            |   |     |                             |                  |               |
| A3.1  | 1.4; 2.11; 2.13        | Temperature              | Automatic           | 1/Shift    | Temperature verified every four hours from computer readout from temperature probes. Calibration of temperature probes verified once per month.                         |     | Meet specified requirements |                  |               |
| A3.2  | 1.4; 2.11; 2.13        | Time                     | Automatic           | 1/Shift    |   |     | Meet specified requirements |                  |               |
| A3.3  | 1.4; 2.11; 2.13        | Current/Voltage          | Automatic           | 1/Shift    | Voltage is monitored and recorded. Amperage is not monitored.   |     | Meet specified requirements |                  |               |
| A3.4  |                        | Chloride Concentration   | Manual              | 1/Day      | Solution analysis performed once per day. Results documented and retained on file.. Out of range situations are reviewed and the appropriate reaction plan implemented. |     | Meet specified requirements |                  |               |
| A3.5  |                        | pH                       | Automatic or Manual | 1/Shift    | pH is checked once per shift  |     | Meet specified requirements |                  |               |

### PROCESS TABLE A - Zinc - Zinc Alloy Plating - Lake Line

| All requirements given below are subordinate to customer specific requirements.<br><br>The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. When performing the job audit, the auditor shall verify plater is conforming to customer requirements. |                        |   |                     |            | Audit Findings  | Assessment |  |                  |   | Actions Taken |
|--|------------------------|---|---------------------|------------|---|------------|--|------------------|---|---------------|
|  |                        |   |                     |            |   | N/A        | Satisfactory   | Not Satisfactory | Needs Immediate Action  |               |
| ITEM #   | Related PSA Question # | Category/Process Steps                  | Control             | Monitoring |   |            |  |                  |   |               |
| A3.6   |                        | Plating Test Cell (Hull)                | Manual              | 1/Day      | Hull Cell testing done minimum of once week on Zinc Plating solutions |            | Contacted Stuart Dodds of Atotech and Abbas from Enthone Inc.. As per letters Hull cell testing once per week is sufficient. Enthone and Atotech performing Hull Cell tests on all Zinc solutions supplied by them a minimum of once per week. |                  |   |               |
| A3.7   |                        | Metal Concentration(s)                  | Automatic or Manual | 1/Day      | Zinc Analysis performed once per week                                 |            | Metal concentration done on zinc baths once per week. The zinc values do not fluctuate and once a week analysis is sufficient.   |                  | Reviewed analysis result for twelve month period. There is no significant changes in zinc concentration that would not be found by weekly analysis. |               |
| A3.8   |                        | Buffer (Ammonia / Boric Acid per TDS)   | Manual              | 1/Day      |   | N/A        | N/A  |                  |   |               |
| A3.9   |                        | Filtration                              | Continuous          | 1/Shift    |   |            | Check of filters done on a daily basis.  |                  |   |               |
| A3.10  |                        | Agitation (Rack only - others optional) | Continuous          | 1/Shift    |   | N/A        | N/A  |                  |   |               |
| A3.11  |                        | Rinse                                   | Per Process Sheet   | 1/Shift    | Rinse overflows are verified a minimum of once per shift.             |            | Meet specified requirements  |                  |   |               |
| <b>4.0</b>   |                        | <b>Alkaline Plating Bath</b>            |                     |            |   |            |  |                  |   |               |
|  |                        | <b>Type:</b>                            |                     |            |   |            |  |                  |   |               |
|  |                        | <b>Size, volume:</b>                    |                     |            |   |            |  |                  |   |               |

## PROCESS TABLE A - Zinc - Zinc Alloy Plating - Lake Line

| All requirements given below are subordinate to customer specific requirements.   |                        |                                      |                             |                   | Assessment   |     |              |                             |                        |               |
|---|------------------------|--------------------------------------|-----------------------------|-------------------|--|-----|--------------|-----------------------------|------------------------|---------------|
| The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. When performing the job audit, the auditor shall verify plater is conforming to customer requirements. |                        |                                      |                             |                   | Audit Findings   | N/A | Satisfactory | Not Satisfactory            | Needs Immediate Action | Actions Taken |
| ITEM #  | Related PSA Question # | Category/Process Steps               | Control                     | Monitoring        |  |     |              |                             |                        |               |
|   |                        | <b>Proprietary name:</b>             |                             |                   |  |     |              |                             |                        |               |
|   |                        | <b>Chemical supplier:</b>            |                             |                   |  |     |              |                             |                        |               |
| A4.1  | 1.4; 2.11; 2.13        | Temperature                          |                             |                   |  |     |              |                             |                        |               |
| A4.2  | 1.4; 2.11; 2.13        | Time                                 |                             |                   |  |     |              |                             |                        |               |
| A4.3  | 1.4; 2.11; 2.13        | Current/Voltage                      |                             |                   |  |     |              |                             |                        |               |
| A4.4  |                        | Caustic Concentration                |                             |                   |  |     |              |                             |                        |               |
| A4.5  |                        | Plating Test Cell (Hull)             |                             |                   |  |     |              |                             |                        |               |
| A4.6  |                        | Metal Concentration(s)               |                             |                   |  |     |              |                             |                        |               |
| A4.7  |                        | Filtration                           |                             |                   |  |     |              |                             |                        |               |
| A4.8  |                        | Rinse                                |                             |                   |  |     |              |                             |                        |               |
| <b>5.0</b>  |                        | <b>Hydrogen Embrittlement Relief</b> |                             |                   |  |     |              |                             |                        |               |
|   | 3.6                    | <b>Oven Type:</b>                    |                             |                   | Forced Air Convection  |     |              |                             |                        |               |
|   | 3.6                    | <b>Oven Temperature:</b>             |                             |                   | Set as per specified requirement.<br>Normal operating set point 400 F    |     |              |                             |                        |               |
| <b>6.0</b>  |                        | <b>Passivates</b>                    |                             |                   |  |     |              |                             |                        |               |
|   |                        | <b>Type:</b>                         | As per process Control Plan |                   |  |     |              |                             |                        |               |
|   |                        | <b>Size, volume:</b>                 |                             |                   |  |     |              |                             |                        |               |
|   |                        | <b>Proprietary name:</b>             | As per process Control Plan |                   |  |     |              |                             |                        |               |
|   |                        | <b>Chemical supplier:</b>            | As per process Control Plan |                   |  |     |              |                             |                        |               |
| A6.1  |                        | <b>Acid Activation</b>               | Per Control Plan            |                   |  |     |              |                             |                        |               |
| A6.1.1  |                        | - Concentration                      | Automatic or Manual         | 1/Shift           | Analysis once per shift  |     |              |                             |                        |               |
| A6.1.2  | 1.4; 2.11; 2.13        | - Time                               | Automatic or Manual         | 1/Shift           | Automatic  |     |              |                             |                        |               |
| A6.2  |                        | <b>Passivate</b>                     | Per Control Plan            | N/A               |  |     |              |                             |                        |               |
| A6.2.1  |                        | - Concentration                      | Automatic or Manual         | 1/Shift           | Analysis once per shift  |     |              |                             |                        |               |
| A6.2.2  | 1.4; 2.11; 2.13        | - Temperature                        | Automatic or Manual         | 1/Shift           | Verified twice per shift   |     |              | Meet specified requirements |                        |               |
| A6.2.3  | 1.4; 2.11; 2.13        | - Time                               | Automatic or Manual         | 1/Shift           | Fixed Machine cycle time   |     |              |                             |                        |               |
| A6.2.4  |                        | - pH                                 | Automatic or Manual         | 1/Shift           | Checked once per shift   |     |              | Meet specified requirements |                        |               |
| A6.2.5  |                        | - Agitation                          | Automatic or Manual         | 1/Shift           | Verified once per shift  |     |              | Meet specified requirements |                        |               |
| A6.2.6  |                        | - Contamination (e.g. Fe, Zn)        | Per Process Sheet           | 1/week            | Iron checked daily in house, and Zinc checked once per month by Supplier |     |              | Meet specified requirements |                        |               |
| A6.3  |                        | Rinse                                | Per Process Sheet           | 1/Shift           | Verified once per shift  |     |              | Meet specified requirements |                        |               |
| A6.4  |                        | Dry                                  | Per Tech Data Sheet         | Per Process Sheet | Verified once per shift  |     |              | Meet specified requirements |                        |               |

**PROCESS TABLE A - Zinc - Zinc Alloy Plating - Lake Line**

| <p>All requirements given below are subordinate to customer specific requirements.</p> <p>The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. When performing the job audit, the auditor shall verify plater is conforming to customer requirements.</p> |                        |   |                     |                          | Assessment                                  |     |                             |                  | Actions Taken |
|---|------------------------|---|---------------------|--------------------------|---|-----|-----------------------------|------------------|---------------|
|   |                        |   |                     |                          | Audit Findings                              | N/A | Satisfactory                | Not Satisfactory |               |
| ITEM #  | Related PSA Question # | Category/Process Steps  | Control             | Monitoring               |   |     |                             |                  |               |
| <b>7.0</b>  |                        | <b>Supplemental Treatments - Sealers and Torque Tension Modifiers</b> |                     |                          |   |     |                             |                  |               |
| A7.1  |                        | Concentration   | Automatic or Manual | Per Control Plan and TDS | Verified once per shift                     |     | Meet specified requirements |                  |               |
| A7.2  | 1.4; 2.11; 2.13        | Solution Temperature  | Automatic           | Per Control Plan and TDS | Verified twice per shift                    |     | Meet specified requirements |                  |               |
| A7.3  | 1.4; 2.11; 2.13        | Time  | Automatic or Manual | Per Control Plan and TDS |   |     |                             |                  |               |
| A7.4  |                        | pH  | Automatic or Manual | Per Control Plan and TDS | Verified once per shift                     |     | Meet specified requirements |                  |               |
| A7.5  |                        | Drying Temperature  | Automatic           | Per Control Plan and TDS | Dryer temperature verified twice per shift. |     | Meet specified requirements |                  |               |
| A7.6  |                        | Spin Speed  | Automatic           | Per Control Plan and TDS |   | N/A |                             |                  |               |
| A7.7  |                        | Agitation   | Automatic or Manual | Per Control Plan and TDS | Verified once per shift                     |     | Meet specified requirements |                  |               |



### PROCESS TABLE F - EQUIPMENT

| All requirements given below are subordinate to customer specific requirements.                        |                        |                 |                    |                              |                        |                       | Assessment |  |                  |                        |
|--|------------------------|-----------------|--------------------|------------------------------|------------------------|-----------------------|------------|--|------------------|------------------------|
| The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. The |                        |                 |                    |                              |                        |                       | N/A        | Satisfactory   | Not Satisfactory | Needs Immediate Action |
| LABORATORY EQUIPMENT   |                        |                 |                    |                              |                        |                       |            |  |                  |                        |
| ITEM #   | Related PSA Question # | Zinc/Zinc Alloy | Decorative Plating | EQUIPMENT TYPE               | Verification Frequency | Calibration Frequency |            |  |                  |                        |
| F1   | 2.14; 3.1; 4.1; 4.2    | X               | X                  | pH Meter/Probe               | Daily                  | Yearly                |            | pH Meter is calibrated using NIST traceable Buffer solutions once per week. Calibration is verified daily.   |                  |                        |
| F1.2   | 2.14; 3.1; 4.1; 4.2    | X               | X                  | Wet Analysis                 | N/A                    | N/A                   |            |  |                  |                        |
| F1.3   | 2.14; 3.1; 4.1; 4.2    | X               | X                  | Atomic Absorption (Optional) |                        |                       |            | Atomic Absorption equipment in house. Equipment is calibrated using NIST traceable standards each time used. |                  |                        |
| MINIMUM REQUIRED TESTING CAPABILITY  |                        |                 |                    |                              |                        |                       |            |  |                  |                        |

## PROCESS TABLE F - EQUIPMENT

| All requirements given below are subordinate to customer specific requirements.                        |                     |   |   |  |       |        | Assessment |  |                  |                        |
|--|---------------------|---|---|--|-------|--------|------------|--|------------------|------------------------|
| The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. The |                     |   |   |  |       |        | N/A        | Satisfactory   | Not Satisfactory | Needs Immediate Action |
| F1.4   | 3                   | X |   | Salt Spray Cabinet                     | N/A   | Yearly |            | Salt Spray cabinet temperature probes have calibration verified minimum of once every three months.            |                  |                        |
| F1.5   | 3.2 & 4.2           | X | X | Thickness Tester                       | Daily | Yearly |            | Thickness testers are calibrated a minimum of once per month with a calibration verification done every shift. |                  |                        |
| F1.6   | 2.14; 3.1; 4.1; 4.2 |   | X | STEP                                   | N/A   | Yearly | N/A        |  |                  |                        |
| F1.7   | 2.14; 3.1; 4.1; 4.2 |   | X | CASS                                   | N/A   | Yearly | N/A        |  |                  |                        |
| F1.8   | 2.14; 3.1; 4.1; 4.2 |   | X | Microscope                             | N/A   | Yearly | N/A        |  |                  |                        |
| F1.9   | 2.14; 3.1; 4.1; 4.2 |   | X | Freezer (POP only)                     | N/A   | Yearly | N/A        |  |                  |                        |
| F1.10  | 2.14; 3.1; 4.1; 4.2 |   | X | Lab Oven (POP only)                    | N/A   | Yearly | N/A        |  |                  |                        |
| F1.11  | 2.14; 3.1; 4.1; 4.2 |   | X | Stress (External Testing Acc.)         | N/A   | Yearly | N/A        |  |                  |                        |
| F1.12  | 2.14; 3.1; 4.1; 4.2 |   | X | Sulfur by Foil (External Testing Acc.) | Daily | Yearly | N/A        |  |                  |                        |
| F2   | 2.14; 3.1; 4.1; 4.2 |   | X | Ductility (External Testing Acc.)      | N/A   | Yearly | N/A        |  |                  |                        |
| F2.1   | 2.14; 3.1; 4.1; 4.2 |   | X | Pore Count/Active Sites                | N/A   | N/A    | N/A        |  |                  |                        |



## PROCESS TABLE F - EQUIPMENT

| All requirements given below are subordinate to customer specific requirements.                        |                   |                           |                    |                                 |                        |                       | Assessment |              |                  |                        |
|--|-------------------|---------------------------|--------------------|---------------------------------|------------------------|-----------------------|------------|--------------|------------------|------------------------|
| The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. The |                   |                           |                    |                                 |                        |                       | N/A        | Satisfactory | Not Satisfactory | Needs Immediate Action |
| PROCESS EQUIPMENT  |                   |                           |                    |                                 |                        |                       |            |              |                  |                        |
| ITEM   | PSA Clause Number | Zinc & Zinc Alloy Plating | Decorative Plating | EQUIPMENT TYPE                  | Verification Frequency | Calibration Frequency |            |              |                  |                        |
| F3   |                   | X                         | X                  | Machine - Return type automatic |                        |                       |            |              |                  |                        |
|  | 3.3 & 4.3         | X                         | X                  | Rack                            |                        |                       |            |              |                  |                        |
|  |                   |                           |                    | Rack Size                       |                        |                       |            |              |                  |                        |
|  | 3.3               | X                         |                    | <b>Barrel</b>                   | N/A                    |                       | N/A        |              |                  |                        |
|  |                   |                           |                    | Horizontal                      | X                      |                       |            |              |                  |                        |
|  |                   |                           |                    | <b>Oblique</b>                  | N/A                    |                       |            |              |                  |                        |
|  |                   |                           |                    | Barrel Size                     |                        |                       |            |              |                  |                        |
|  |                   |                           |                    | -volume                         |                        |                       |            |              |                  |                        |
|  |                   |                           |                    | -dimensions                     | N/A                    |                       |            |              |                  |                        |
| F3.1   |                   | X                         | X                  | Hoist                           | N/A                    |                       |            |              |                  |                        |
|  |                   |                           |                    | Manual                          |                        |                       |            |              |                  |                        |
|  |                   |                           |                    | Automatic                       | X                      |                       |            |              |                  |                        |
|  |                   |                           |                    | Rack Size                       | N/A                    |                       |            |              |                  |                        |
|  |                   |                           |                    | Barrel Size                     |                        |                       |            |              |                  |                        |
| F3.2   | 3.4 & 4.4         | X                         | X                  | Rectifier Type                  |                        |                       |            |              |                  |                        |
|  |                   |                           |                    | Water cooled                    |                        |                       |            |              |                  |                        |
|  |                   |                           |                    | Air cooled                      | X                      |                       |            |              |                  |                        |
|  |                   |                           |                    | Amperage controlled             | Yes                    | Once/year             |            |              |                  |                        |

## PROCESS TABLE F - EQUIPMENT

| All requirements given below are subordinate to customer specific requirements.                        |                   |                           |                    |                    |                                    |                         | Assessment |                              |                  |                        |
|--|-------------------|---------------------------|--------------------|--------------------|------------------------------------|-------------------------|------------|------------------------------|------------------|------------------------|
| The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. The |                   |                           |                    |                    |                                    |                         | N/A        | Satisfactory                 | Not Satisfactory | Needs Immediate Action |
| ITEM   | PSA Clause Number | Zinc & Zinc Alloy Plating | Decorative Plating | EQUIPMENT TYPE     | Verification Frequency             | Calibration Frequency   |            |                              |                  |                        |
|  |                   |                           |                    | Voltage controlled |                                    |                         |            |                              |                  |                        |
| F3.3   |                   | X                         | X                  | Filters            | Yes                                |                         |            |                              |                  |                        |
|  |                   |                           |                    | Pre-pack Cartridge | Sand Filters FCD-027 B&E           |                         |            |                              |                  |                        |
|  |                   |                           |                    | Other              |                                    |                         |            |                              |                  |                        |
| F3.4   | 3.5               | X                         |                    | Oven type          | Forced Air Convection              |                         |            |                              |                  |                        |
|  |                   |                           |                    | Continuous         | No                                 |                         |            |                              |                  |                        |
|  |                   |                           |                    | Batch              | Yes                                |                         |            |                              |                  |                        |
|  | 3.5               | X                         |                    | Chart recorder     | Yes                                | Once every three months |            | Meets specified requirements |                  |                        |
|  | 3.6               | X                         |                    | Thermocouples      | Yes                                | Once every three months |            | Meets specified requirements |                  |                        |
|  |                   |                           |                    | number             |                                    | 2                       |            |                              |                  |                        |
|  | 3.3               | X                         |                    | Basket type        |                                    |                         |            |                              |                  |                        |
|  |                   |                           |                    | Expanded metal     |                                    |                         |            |                              |                  |                        |
|  |                   |                           |                    | Perforated         |                                    | X                       |            |                              |                  |                        |
|  |                   |                           |                    | Solid              |                                    |                         |            |                              |                  |                        |
|  |                   |                           |                    | Size               |                                    |                         |            |                              |                  |                        |
| F3.5   |                   | X                         | X                  | Controllers        |                                    |                         |            |                              |                  |                        |
|  |                   |                           |                    | Automatic feeders  | Yes on some Lines where applicable |                         |            |                              |                  |                        |
|  |                   |                           |                    | Timers             | Yes on some Lines where applicable |                         |            |                              |                  |                        |

### PROCESS TABLE F - EQUIPMENT

| All requirements given below are subordinate to customer specific requirements.                        |  |   |   |                |                                    |                | Assessment |                              |                  |                        |
|--|--|---|---|----------------|------------------------------------|----------------|------------|------------------------------|------------------|------------------------|
| The customer may have additional requirements, e.g., inspection testing, greater frequencies, etc. The |  |   |   |                |                                    |                | N/A        | Satisfactory                 | Not Satisfactory | Needs Immediate Action |
|  |  |   |   | Temperature    | Automatic temperature Controllers. | Once per month |            | Meets specified requirements |                  |                        |
|  |  |   |   | Volume         |                                    |                |            |                              |                  |                        |
| F3.6   |  | X | X | Agitation type |                                    |                |            |                              |                  |                        |
|  |  |   |   | Air            | verified every shift               |                | N/A        |                              |                  |                        |
|  |  |   |   | Cathode rod    | N/A                                |                |            |                              |                  |                        |
| F3.7   |  | X | X | Water source   |                                    |                | N/A        |                              |                  |                        |
|  |  |   |   | Tap            | Yes                                | X              | N/A        |                              |                  |                        |
|  |  |   |   | RO             |                                    |                | N/A        |                              |                  |                        |
|  |  |   |   | Deionized      |                                    |                | N/A        |                              |                  |                        |