	Astro Nuclear/Dynamics Inc. 2901 Industrial Boulevard Bethel Park, PA 15102			No. CP	-112	Rev. D	Date: 9/4/97
				Subject	Subject: Identification and Control of Materials and Items		
Approv	ved:		Prepar	ed:	ALC OF MILE STORE OF SHIELD	Arthon which is it that is private research. Under	
	Donald C. Gra	ay, QA M	anager	Paul G.	Heffernan,	President	
1.0	PURPOSE						
	1.1	To estal traceabi or defec	blish methods for t ility of all items to stive items.	he identifica heat/lot num	tion and co ber and op	ontrol of materials perations to prever	and items to insure it the use of incorrect
2.0	APPLICABILITY						
	2.1	The pro to be co	ocedures contained onducted in accord	herein are a ance with the	pplicable t Quality A	lo customer contra Assurance Progran	cts requiring activities 1.
3.0	REFERENCES						
	3.1	Exhibit	ă				
		Form A Form A Form A Form A Form A	9205 (Exhibit R) 9218 (Exhibit Z) 9219 (Exhibit AA (Exhibit AP 9217 (Exhibit Y) 9207 (Exhibit L) 9240 (Exhibit AJ	- N - F - N - N	Manufactur Electrode C Ioncoated Sypical Sta Material Co Leceipt Ins Material Ro	ring Plan Oven Storage Reco Filler Material Sto tus Indicating Stic ontrol Log spection Report ecertification/Tran	ord orage Record kers, Labels and Tags sfor Form
4.0	PROCEDURE						
	4.1	Verific	ation of Supplied M	Material Iden	tification		
		All materials and items upon receipt are inspected by the Quality Assurance Engineer to verify the following:					
		4.1.1. Availability of applicable Certified Material Test Reports (CMTR's) or Certificates of Compliance (C of C's), as applicable.					
		4.1.2	Compatibility of	CMTR data	with clear	r markings on the	material, such as:
			Heat n Specifi Markir Other t	umber or hea ication and g ngs required test or exami	it code, rade of ma by the Coc nation data	tterial, le and material sp a, as applicable	ecifications,
			This marking m marked due to s	ay be on the ize.	container	of items that canno	ot be stamped or
		4.1.3	All items will be physically segra	e verified to l gated based	oe safety re on that pro	elated or non-safet	y related and nent

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	4.1.4	lf markii identifie explaine specifica	ng per 4.1.2 is not d the material with ed on the certificate ation.	feasible, a marking the material certif e except where min	g symbol or code is a foate and such symb imum markings are	acceptable which ol or code must be required by the
	4.1.5	Accepte summar Report (Where i indicated	ed and/or non-confi ized on a Receivir (IDR) Exhibit AL, nspection instruction d by the Quality E	orming materials as ag Inspection Report with the items ident ons are not require ngineer's initials of	nd items, inspected j rt (RIR) Exhibit L, c ntified individually, c d by the Quality En n the copy of the PO	per instructions or Inspection Data or by lot, as applicable. gineer, acceptance is (Ref. QAP 10-1).
	4.1.6	Non-con processe accepted receivin remove	nforming items are ed in accordance v d will be initially h g Quality Enginee the hold tags.	identified with hol with QAP 15-1. Al ogged in the Materi r. If the material is	d tags, segregated, i l items received at A ials Control Logs (so assceptable, the Qu	f possible, and ANDI and subsequently ee Exhibit Y) by the sality Engineer shall
.2 A	ND! Identifica	tion				
4.	2.1 ANDI Procured Maix 1al					
		4.2.1.1	For traceability a Inspector adds th at receiving insp	and identification co te following legible ection:	ontrol of received m markings directly c	aterials and items, QC on the materials or items
			 Purchase Ord Serial number 	er number, P.O. ite r(s) specified on M	m number and heat anufacturing Plans.	number/ or;
		4.2.1.2	In addition to the cannot be stamp containers which or batch number	e marking requirem ed or marked will b a will be legibty ma	ents of the material be consolidated and rked with the PO ar	specification, items tha placed in cartons or id item number, and lot
		4.2.1.3	Alternatively, an materials or item number (as appl	ANDI lot control as, which identifies icable).	code may be assigne the material with th	d, and applied to the e PO, item, and serial
		4.2.1.4	The Manager, M Material Recerti one contract to a	lanufacturing Engin fication Transfer (F nother or from stor	heering shall be resp Exhibit AJ) for the tr	oonsible for initiating a ransfer of material from

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4.2.1.5 Quality Assurance Manager may re-certify ASME Section III inventory material to earlier or later Code Editions/Addenda's by performance of additional examinations, tests or treatments as required that may not have been performed by the original material manufacturer. Exhibit AJ and all related documentation shall be issued by ANDI that identifies the new Code Edition/Addenda of the material. A legible copy of the manufacturer's material test report shall be included with the documentation.

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4.3 Utilization of Unqualified Source Material

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4.3.1 ANDI may accept certification of the requirements of the material specification which must be performed during the melting, heat analysis, and heat treatment of the material, and may use of furnish unqualified source material, provided the requirements (1) through (4) below are met:

 No welding with filler metal has been performed on the unqualified source material.
 ANDI performs or subcontracts all other requirements of the material specification on each piece of unqualified source material.

(3) ANDI performs or subcontracts all other requirements of the material specification on each piece of unqualified source material. Alternatively, ANDI may perform or subcontract all other requirements of the material specification on each heat and lot of unqualified source material provided

(a) A Certified Materia. Test Report is provided with the unqualified source material.

(b) The unqualified source material is traceable to the Certified Material Test Report.

(c) Procurement documents require that suppliers of unqualified source material establish written procedures for identigying source materials in a manner that provides traceability to the Certified Material Test Report.
(d) ANDI reviews and accepts the supplier's identification and traceability procedures and verfies compliance with the procedures at a frequency commensurate with the schedule of production or procurement, but at least once triennially.

(e) Upon receipt, ANDI shall verify by review of objective evidence, that the requirements of the procurement document have been met.

4) Where Certificates of Compliance are acceptable, testing each piece is not required.5) The provisions of (1) through (3) above are performed in a cordance with this Program.

4.3.2 If the material or items are supplied by the customer, the receiving Quality Engineer will add the Job Number to the material or items after receiving inspection.

4.4 Material and Items Control

- 4.4.1 The Machine Shop Foreman is responsible to continue to maintain identity of items after release. The Quality Assurance Manager will verify that identification is maintained throughout processing.
- 4.4.2 When items other than weld materials (refer to Section 4.1 and 4.2) are released for manufacturing, they will identified on the Manufacturing Plan(s) and logged out on the Material Control Log by the Quality Assurance Engineer. Excess material is returned to controlled stores accompanied by its identifying Manufacturing Plan(s) and is logged back into the Material Control Log by the Quality Assurance Engineer.

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- 4.4.3 Identification during the manufacturing cycle will be maintained by the functional activity indicated by the respective operation description on the Manufacturing Plan(s).
- 4.4.4 Completed items, being stored prior to release for assembly, shipment or the next operation, shall by returned to controlled storps with the applicable Manufacturing Plan(s). Subsequent releases for Manufacturing shall be via approved Manufacturing Plan(s). The segregation of safety and non-safety items will be restored if returned to controlled stores.

4.5 Transfer of Material and Item Identification

- 4.5.1 When the material or item is to be subdivided, the identification is transferred by the machinist and verified by Quality Engineer prior to the separation process per the Manufacturing Plan(s).
- 4.5.2 When process operations will remove existing identification, the Manufacturing Plan(s) will require recording, and maintenance of identification to completion of item.
- 4.5.3 All transferring of identification will be verified by the Quality Engineer and documented by signing and dating the corresponding inspection operation number of the Manufacturing Plan(s).

4.6 Additional Identification and Control for Weld Material

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- 4.6.1 The Quality Assurance Manager is responsible for reviewing all weld material qualification and acceptance records (CMTR's) supplied with the shipment.
- 4.6.2 QC Inspector will verify the carton or tube of coated electrodes, type, size, specification, Heat/Lot, and PO and item number, as applicable. In addition, each electrode and container shall be identified in accordance with the material specification.

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	4.6.3	The bare filler rod container or rer, will be identified as to type, size, specification, Heat/Lot and PO and item number, as applicable, and the marking requirements of the material specification.						
	4.6.4	All welding materials must include a Heat/Lot number which identified the materials with the CMTR.						
	4.6.5	Accepted weld material will be identified and stored by the Quality Assurance Engineer in the controlled storage room.						
	4.6.6	6 Flux will be identified on each container as to type, specification number. granule size, batch and PO and item number, as applicable.						
	4.6.7	Gas used in welding shall be identified by the supplier's standard system. The Machine Shop Foreman will apply the applicable PO to each sylinder identification tag as they are received. This PO number will be verified by Quality Assurance Engineer prior to use.						
4.7	Release to Holding Ovens/Lockers							
	4.7.1	1.1 Machine Shop Foreman will store coated electrodes in a holding oven controlled at the manufacturers recommended temperature, or lockers (bare filler wire) located in the weld shop area. This transfer is verified and monitored by the inspector on the Electrode Oven Storage Record form (see Exhibit Z) for coated electrodes and on the Non-coated Filler Metal Storage Record form (see Exhibit AA) for bare filler wire (cut length).						
4.8	Release of Automatic Feed Reels and Flux							
	4.8.1	The Manufacturing Engineer, at the time the manufacturing plan is prepared, enters the purchase order and item number of the weld materials to be used. The Machine Shop Goreman records the heat number of the weld material on the Manufacturing Plan.						
	4.8.2	The Machine Shop Foreman will, upon receipt of the approved weld procedure and Manufacturing Plan, release and transfer from controlled storage the qualified combination of weld material and flux. This release and transfer is documented by signing and dating the corresponding operation number on the Manufacturing Plan(s). Alternately, this release and 4.7.1 may be done by the Quality Assurance Engineer.						
	4.8.3	After the initial release, the Machine Shop Foreman is responsible for recording the weld material description information such as Heat/Lot number, PO number, etc., on subsequent Manufacturin Plan(s) for the same item.						
	4.8.4	Automatic feed reels of flux in hoppers need not be removed from the welding equipment until completion of the job for which it was assigned. After completion of the job, the remaining wire and flux may be left on the machine if identification is maintained and additional use is anticipated in the near future. If removed from the machine, the remaining wire and flux shall be returned to controlled storage.						

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4.9 Distribution of Other Weld Material to Welders

4.9.1 The Machine Shop Foreman or designee controls and consigns coated electrodes and bare filler wire form the secured holding ovens or lockers. Weld material consignment is in accordance with the requirements of the approved weld procedure and Manufacturing Plan. The Machine Shop Foreman or designee documents this consignment to welder(s) by transferring weld material descriptive data from the applicable scetion of the corresponding record forms identified in Paragraph 4.5.4. As a minimum, the PO number, diameter and heat number will be transferred directly to the Manufacturing Plan(s) by the Machine Shop Foreman or designee.

4.9.2 Only a sufficient amount of filler metal require 1 to complete a specific welding operation, or an amount not to exceed welders quiver capacity (coated electrodes), or an amount of bare filler wire necessary for a given shift of continuous welding (whichever is less) is issued to a welder. Welders maintain all issued coated electrodes in quivers located at welding work stations. Welders place all damaged, partial stubs or unidentified welding materials in designated stub/scrap containers.

4.9.3 At the completion of a given welding operation or work shift, any unused weld filier material is returned to the Machine Shop Foreman or designee who will examine it for acceptable use and then, after positively identifying it, return it to the same holding oven or locker section from which it came, weld filler material which is unacceptable is scrapped.

4.10 Material and Item Status Indicator

- 4.10.1 The status of materials or items following inspections and test operations is indicated by placing the applicable stickers, tags and/or control forms directly on the materials or items, on their containers or on records traceable to them (see Exhibit AP). When metal stamping is utilized, the stamps are of the "Low Stress Type."
- 4.10.2 Quality Assurance is responsible for the application and removal of status indicators.

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