APPENDIX A

Sandvik Special Metals Corporation
Docket No. 99900764/82-01

NOTICE OF NONCONFORMANCE

Based on the results of an NRC inspection conducted on April 6-8, 1982, it appears that certain of your activities were not conducted in accordance with NRC requirements as indicated below:

Criterion V of Appendix B to 10 CFR Part 50 states: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished."

Nonconformances with these requirements are as follows:

A. Quality Assurance Manual, Section 1-6, "Document Control," Revision 5, paragraph 6.0, states in part: "The documents that are utilized in manufacture and inspection of products are controlled through formal policies and procedures."

Contrary to the above:

1. The following examples were identified where the control of documents was not in accordance with the requirements of Document Control Procedure QA-GA-7, Revision 1:

   a. The document index pages in Quality Assurance Procedure Manual No. 3 were not the current issue required by paragraph 2.4.

   b. Superseded procedure revisions were not removed from work locations in accordance with paragraph 6.3; e.g., (1) Quality Assurance Procedure Manual No. 21 contained a superseded revision of Procedure QA-GA-9; (2) a superseded revision of Procedure QA-GA-16 was at the rework station; and (3) a superseded revision of Procedure NDT-UT-10 was at the UT line 4 station.

   c. Specification Z-075 was not at the rework station, as required by paragraph 5.2.

   d. Unassigned procedures were found at three work stations (Vacuum Blast-one, Final Inspection-one, Special Products-two) which is contrary to paragraph 5.1.

2. Procedure QA-GA-23, pertaining to establishment of visual standards, was not listed in the Quality Control Matrix as required by paragraph 0.0 in Section 1, Revision 3, of the QA Manual.

B. Quality Assurance Manual, Section 1-10, "Inspection," Revision 4, paragraph 10.0, states in part: "All routine inspections are performed . . . in accordance with written instructions contained in the Process Specification Manual and Quality Assurance Manual."

Contrary to the above, certain inspections were not being performed in accordance with written instructions, as evidenced by the following examples:

1. Identity of surface measurement equipment in use was not being documented, although required to be by QA-SP-45, Revision 2, paragraph 4.12.

2. Verification of the digital thermometer used for elevated temperature tensile testing was performed three times in the last 12 days of testing and not daily as required by Laboratory Procedure 1300-19, Revision 5, paragraph 8.2.

3. Contractile Strain Ratio testing was being performed without the applicable written procedure required by the QA Manual, section 5, paragraph 5.0.j.

C. Quality Assurance Procedure, QA-GA-5, "Receiving Inspection and Control of Starting Material," Revision 10, paragraph 3.1.1 states: "Quality Control shall complete and distribute Form QC 110 (Appendix I) for each approved ingot." Form QC 110 identifies that given ingots are acceptable to certain customers.

Contrary to the above, ingots were used but were not identified on QC 110 form as being acceptable to the customer.

D. Quality Assurance Manual, Section 1-12, Revision 4, paragraph 12.0 states in part: "Instruments critical to product and quality measurement are calibrated at established frequencies . . . . Quality Assurance Procedure lists the critical instruments and defines the calibration frequency methods and reports required . . . ." Quality Assurance Procedure No. QA-GA-15, Revision 5, paragraph 4.0 states in part: "The items listed in Appendix I shall be calibrated at the prescribed maximum interval or prior to use . . . . The responsible section, as shown in Appendix I, shall maintain calibration records for the items listed therein . . . . In addition, the calibration record card or file shall be updated to show the current status."

Contrary to the above, the following conditions were observed:

1. The ultraviolet light, an instrument critical to quality measurement during fluorescent penetrant examination, was neither listed in Appendix I nor were there records to show that its light intensity has been verified.

2. The Weston light meter, which could be used to verify the intensity of the ultraviolet light, was neither listed in Appendix I nor were there records to show if it had been calibrated.

3. Ultrasonic Test (UT) 3D standard no. 2018, being used as a reference for inside and outside tube diameter measurements, did not have a calibration record card available.

4. UT standard F-2002-3, used for flaw detection, could not be located, and the calibration record card did not identify the standard as being out of service.

E. Quality Assurance Procedure No. NDT-PT-1, Revision 3, paragraph 4.1 states in part: "Use the following materials for fluorescent post emulsified liquid penetrant inspection of thimble tubes.

Penetrant	ZL-22A
Emulsifier	ZR-1
Developer	ZP-9 . . ."

Contrary to the above, ZR-10 emulsifier was being used during fluorescent penetrant examination of thimble tubes rather than the required ZR-1 emulsifier.

F. Quality Assurance Manual, Section 1-1, "Quality Assurance Program," Revision 1, paragraph 1.2 requires that all employees be indoctrinated and trained in QA.

Contrary to the above, there was no evidence or documentation of some QA training. For example, six out of seven QA files for inspectors did not contain the Job Training Progress Record required by paragraph 3.4 of QCI No. 4, Revision 0 on inspection activities, and there was no evidence that the seven inspectors had received indoctrination and training in QA activities in general. In addition, the QA files for six exempt employees in the QA organization contained no documented evidence of QA indoctrination and training.

G. Quality Assurance Manual, Section 1-17, "Quality Assurance Records," Revision 4, states in part: ". . . the retention period for . . . specifications and procedures . . . is 10 years minimum . . . ."

Contrary to the above, certain records were not being retained for 10 years, in that superseded revisions for two laboratory procedures (Nos. 1300.19 and 1300.20) and one process specification (No. Z431) were missing from the historical files.

H. Quality Assurance Manual, Section 1-0, "Introduction," Revision 3, states in part: "The intention of this manual is to describe a system which meets the requirements set forth in . . . ANSI N45.2 - 1971 . . . ."

Section 19, "Audits," of ANSI N45.2-1971 states in part: "A comprehensive system of planned and documented audits shall be carried out . . . ."

Contrary to the above requirements, the audit system was not comprehensive in that internal audits were not scheduled to be performed in all applicable areas. For example, some areas that were not addressed were procurement, control of materials, QA records, nonconforming materials, indoctrination, and training.

I. Quality Assurance Procedure No. QA-GA-22, "Internal Audit Procedure," Revision 2, states in part in the following paragraphs:

2.1 - "Audits shall be performed in areas listed in Attachment 1. Each area shall be audited a minimum of twice per year."

2.4 - "Deficient areas are reaudited . . . ."

2.6 - "Any finding . . . (will be) responded to in writing by the department manager . . . within 30 days of the date of issue of the Deficiency Report."

5.4.1 - ". . . audit report . . . distributed to: . . . E. Production Manager . . . ."

Contrary to the above, a review of the internal audit reports (nine) for 1981 indicated that:

1. Of the 16 scheduled audit areas; 5 were not audited and another 5 were audited only once.

2. There were no followup audits in three of six areas in which deficiencies were found.

3. For six findings, the reply from management in the affected area exceeded 2 months in one case, and in two cases management had still not replied 8 months after the issue of the Deficiency Reports.

4. The Production Manager was not on the distribution for five of nine audit reports.