

ORGANIZATION: EXO SENSORS, INC.
ANAHEIM, CALIFORNIA

REPORT NO.: 99901015/85-01	INSPECTION DATE(S): May 28-31, 1985	INSPECTION ON-SITE HOURS: 62
CORRESPONDENCE ADDRESS: Exo Sensors, Inc. 1220-B Simon Circle Anahiem, California 92806		
ORGANIZATIONAL CONTACT: Don W. Stevens, President TELEPHONE NUMBER: 714-632-8289		
PRINCIPAL PRODUCT: Hydrogen Sensors and Analyzers and other instrumentation. NUCLEAR INDUSTRY ACTIVITY: 60-70%.		
ASSIGNED INSPECTOR: <u>E. T. Baker</u> E. T. Baker, Reactive Inspection Section (RIS)		<u>8/5/85</u> Date
OTHER INSPECTOR(S): J. C. Harper, RIS		
APPROVED BY: <u>E. W. Merschoff</u> E. W. Merschoff, Chief, RIS, Vendor Program Branch		<u>8/7/85</u> Date
INSPECTION BASES AND SCOPE: A. <u>BASES</u> : 10 CFR Part 50 Appendix B and 10 CFR Part 21. B. <u>SCOPE</u> : The inspection was conducted to investigate an allegation that Exo Sensors, Inc. had failed to report a deficiency under 10 CFR Part 21 and that a complete breakdown of their Quality Assurance program existed.		
PLANT SITE APPLICABILITY: Prairie Island 1 and 2 (50-282/306), San Onofre 1 (50-206), Salem 1 and 2 (50-272/311), Comanche Peak 1 and 2 (50-445/446), Point Beach 1 and 2 (50-266/301), Beaver Valley 1 and 2 (50-334/412), Shearon Harris 1 and 2 (50-400/401), Millstone 3 (50-423), James A. FitzPatrick		

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PLANT SITE APPLICABILITY: (continued)

(50-333), Fermi 2 (50-341), Arkansas 1 (50-313), Davis-Besse (50-460), Brunswick 1 and 2 (50-325/324), LaSalle (50-373/374), Browns Ferry (unit not known), WNP-2 (50-397), Grand Gulf (50-416/417), Crystal River 3 (50-302).

A. INSPECTION ISSUES

The NRC had received allegations that a breakdown of the Quality Assurance Program existed at Exo Sensors, Inc. and that Exo Sensors, Inc. knowingly and willingly violated 10 CFR Part 21 reporting requirements.

B. INSPECTION FINDINGS

1. Violations:

Contrary to 10 CFR Part 21, Exo Sensors, Inc. did not have any procedures for evaluating deficiencies for reportability under 10 CFR Part 21 or reporting the deficiencies to their customers for evaluation. A Severity Level V violation was issued in this area.

2. Nonconformances:

- a. Contrary to Appendix B, Exo Sensors had not documented the authority and duties associated with the position of Vice President of Engineering and Quality Assurance which was established in August 1984.
- b. Contrary to Appendix B, ANSI N45.2.6, ASNT SNT-TC-1A, and Paragraph 1.3.3 of Exo Sensors' Quality Assurance Manual (QAM) Exo Sensors failed to establish and implement a training program which met Appendix B and failed to adequately train and qualify the production, inspection, and test personnel.
- c. Contrary to Appendix B, Paragraph 5.3.5 of the QAM and Quality Operating Procedure QOP-024, Exo Sensors failed to control the issuance and modification of shop travellers, used Engineering Change Notices (ECNs) rather than Procedure Change Notices (PCNs) to control changes to QOPs, and implemented ECNs prior to their approval.

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- d. Contrary to Appendix B, Paragraphs 4.4, 7.1, and 7.4 of the QAM, Exo Sensors placed a purchase order with Air Dimensions prior to approving them and placing them on the Approved Suppliers List, and failed to place any controls on distributors who supplied components for safety related equipment. In addition, paragraph 7.6 of the QAM conflicts with paragraphs 4.4, 7.1, and 7.4 of the QAM.
- e. Contrary to Appendix B, paragraphs 9.3, 10.9.1, and 10.9.2 of the QAM, and Ebasco purchase order (PO) NY-435288, unqualified personnel performed soldering operations, inspections of soldered joints, and other visual examinations. In addition, annual vision examinations for inspectors had never been performed and qualification records did not meet specified requirements.
- f. Contrary to Appendix B and paragraph V.2 of QOP-065, Exo Sensors failed to consistently establish inspection hold points or perform the inspections.
- g. Contrary to Appendix B and paragraph 12.18 of the QAM, Exo Sensors failed to include instrument calibration data recording requirements in some QOPs. In addition, QOP-064 does not require recording test results if the valves fail the test. Only if the valves pass the test are the results required to be recorded.
- h. Contrary to Appendix B and paragraph 5.1.1 of the QAM, production and inspection personnel were not signing off on the shop travellers when operations and inspections were completed. In addition, the QAM has no provisions for tracking "conditional release" material.
- i. Contrary to Appendix B and paragraph 15.2 of the QAM, Exo Sensors was performing repairs and rework without written procedures. In addition, the QAM does not address how nonconformances discovered as a result of Quality Surveys or Questionnaires are documented.
- j. Contrary to Appendix B and paragraph 16.2.8 of the QAM, most Defect Report (DR) forms had not been signed off upon completion of any required corrective action and on Defect Report DR-473 there was no indication that the rejected circuit boards covered by the DR were ever reworked or re-inspected although the boards were used in equipment supplied to Fermi 2 and Fitzpatrick plants.

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- k. Contrary to Appendix B and paragraphs 2.2, 18.1.1, and 18.1.5 of the QAM, Exo Sensors failed to perform periodic audits on an annual basis and also failed to close out audit findings for the audits that were performed.

3. Allegations

The following allegations were investigated during the inspection:

a. Allegation:

The corporate organizational chart is not up-to-date.

Observation:

The allegation was substantiated and nonconformance B.2.a was issued in this area. At the time of the inspection, the position of Vice President of Quality Assurance and Engineering, which was created in August 1984, had not been added to the organization chart, nor had the duties and authorities associated with the position been documented.

b. Allegation:

There exists insufficient organizational freedom in that the Vice President of Engineering is also in charge of Quality Assurance. In addition, he is also the Chief Designer verifying his own work.

Observation:

The allegation was not substantiated. The organization's structure is sufficient to provide the necessary degree of organizational freedom and independence between Quality Assurance and other departments. Each division (Quality Assurance, Engineering, Manufacturing, and Marketing) has a separate manager. The Manager of QA and the Manager of Engineering both report to the Vice President of QA and Engineering who reports to the President. As with most small companies, there were instances where due to absences or position vacancies a single employee performed in more than one capacity. However, it was not evident that this had an adverse impact on product quality.

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c. Allegation:

The Quality Assurance Manual does not contain provisions for independent checking and verification of design; independent checking and verification of design is not being accomplished.

Observation:

The allegation was not substantiated. The Quality Assurance Manual (QAM) contains adequate provisions for independent checking and verification of design. The implementation of these requirements was not consistent for the reasons stated in b. above, employees performing in more than one capacity due to absences or vacancies. Again, it was not evident that this condition had an adverse impact on product quality.

d. Allegation:

There are few provisions in the Quality Assurance Manual requiring that procurement documents impose or require compliance with 10 CFR 21. The allogger indicates that these requirements are not being imposed on suppliers in the procurement process.

Observation:

The allegation was not substantiated. The QAM does require passing Part 21 requirements down to suppliers of safety related parts. Purchase orders (POs) for safety related parts, which were reviewed, did pass Part 21 requirements down to subtier suppliers. However, the majority of materials and components purchased are commercial grade, to which Part 21 is not applicable.

e. Allegation:

No Approved Vendors List exists at Exo Sensors and there are no provisions implemented to determine whether vendors are qualified and that procurement is from appropriately qualified vendors.

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Observation:

This allegation was partially substantiated and nonconformance B.2.d was issued in this area. An Approved Vendors List (AVL) does exist at Exo Sensors, however, the QAM allows unapproved vendors to be used. In addition, the QAM allows certain categories of vendors, i.e., distributors to be placed on the AVL without adequate justification.

f. Allegation:

The company does not have a design manual. Two engineers perform design as they feel necessary and this design is not documented. The design process is not controlled.

Observation:

This allegation was partially substantiated and nonconformance B.2.c was issued in this area. There are no requirements, either contractual or regulatory, that a company must have a design manual, only that the design process be controlled and the design documented. There were instances where the QAM requirements for control of design changes were not followed, i.e., the issuance of Engineering Change Notices prior to approval.

g. Allegation:

Procedures for document control and filing are non-existent and practices are not consistently implemented. There exists no formal system to maintain document control.

Observation:

This allegation was partially substantiated and nonconformance B.2.c was issued in this area. There are no procedures for controlling shop travellers. Work was started prior to generating shop travellers and changes were made to the travellers after initial approval without subsequent approval. In addition, Exo Sensors was using the incorrect form to document changes to Quality Operating Procedures (QOPs).

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h. Allegation:

No hold or QC witness points are used on shop travellers.

Observation:

This allegation was partially substantiated and nonconformance B.2.f was issued in this area. The QAM and QOPs have requirements for hold points, but the hold points are not consistently indicated on the shop travellers nor are they consistently complied with.

i. Allegation:

There was no program in place for nonconformance reporting prior to March of 1985. Further, many of the nonconformance reports initiated since March of 1985 are still open and corrective action has not been implemented.

Observation:

This allegation was partially substantiated and nonconformances B.2.i and B.2.j were issued in this area. A review of the QAM indicates that a program for documenting nonconformances did exist prior to March 1985. However, there were numerous Defect Reports that had never been closed out, including those initiated both prior to and after March 1985. An example of the Defect Reports not closed out is Defect Report DR-473. DR-473 was issued on 10/15/84 for 21 DAC Boards which were soldered by an unqualified individual. At the time of the inspection there was no indication on the DR that the boards had ever been corrected or reinspected. Nor had the President or Corrective Action Designator signed off that the DR was closed, as required. In addition, the QAM does not address how nonconformances discovered as a result of Quality Surveys or Questionnaires are documented.

j. Allegation:

There is no provision in the Quality Assurance Manual for quality assurance audits.

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Observation:

This allegation was not substantiated. The QAM does contain requirements for conducting audits. However, periodic audits of the complete quality program have never been performed, as required by the QAM. Nonconformance B.2.k was issued in this area.

k. Allegation:

The allegor indicates that equipment with "short support rails" was supplied on 'out of containment' racks. The rails do not conform to drawing requirements; further, the allegor indicated that one of these rails failed at FitzPatrick Station.

Observation:

This allegation was not substantiated. A review of the correspondence and the trip report written by the investigating engineer, including photographs, indicated that the failures discovered at FitzPatrick were due to shipping damage and not design deficiencies or nonconforming hardware.

l. Allegation:

General Electric's vendor audits of Exo Sensors have not identified any of these problems indicating to the allegor that either General Electric is not looking closely or that audits were performed by incompetent auditors. In fact, the allegor indicates a recent audit by Northern States Power was performed by an incompetent auditor.

Observation:

The inspectors reviewed the audits performed by General Electric and Northern States Power. None of these audits detected any nonconformances of significance. As such, the allegation was partially substantiated. Qualifications of the auditors were not examined during this inspection.

m. Allegation:

General Electric vendor surveillance representatives have allowed shipment of equipment before the paperwork is completed.

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Observation:

This allegation was partially substantiated. Equipment was shipped prior to completion of all paperwork. However, as long as GE controlled the equipment properly this would not necessarily create any quality problems. Correspondence to GE indicates that the paperwork was sent to GE shortly after the hardware was shipped.

n. Allegation:

The alleged indicates that a Mill Certification was falsified in that information was removed from another certification and added to a different certification by hand.

Observation:

The allegation was not substantiated. The Mill Certification the alleged made reference to was reviewed by the inspectors. The addition to the Certified Material Test Report (CMTR) was hand written in ink and included the initials of the person who added the information and the date it was added. In addition, the CMTR from which the hand written information was taken was available to the inspectors and indicated that the handwritten information was accurate. Therefore, the CMTR had been altered, not falsified. There was no intent to defraud.

o. Allegation:

Material on hold in the warehouse is used before accomplishment of receipt inspections. The alleged indicates that he wrote an NCR on this practice.

Observation:

The allegation was substantiated through a review of the NCRs and discussions with management personnel. The inspectors did not observe any further instances of this type of nonconformance during the inspection. However, there was insufficient time to determine to what extent this problem existed in prior production.

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p. Allegation:

Based on these examples of nonconformance the allegor stated that a breakdown of the Quality Assurance Program exists at Exo Sensors, Inc.

Observation:

This allegation was substantiated to the extent that significant deficiencies in the implementation of the Exo Sensors QA program were identified. In addition, based on record review, a Quality Assurance Program which complies with Appendix B to 10 CFR Part 50 has never existed at Exo Sensors, Inc.

q. Allegation:

The allegor was of the opinion that such a breakdown of the Quality Assurance Program was reportable under 10 CFR Part 21, that company officials were aware of the breakdown and Part 21 reporting requirements and were consciously not reporting as required.

Observation:

This allegation was not substantiated. A breakdown of a Quality Assurance program is not required to be reported under 10 CFR Part 21 due to the subjective nature of determining when a breakdown has occurred. However, in investigating this allegation it was determined that Exo Sensors did not have any Part 21 procedures and violation B.1 was written in this area.

C. Supplementary Information

In determining whether or not the allegations could be substantiated, the inspectors, (1) reviewed the QAM, some QOPs, Exo Sensors' POs to subtier suppliers, drawings, utility/utility agents audits of Exo Sensors, Carolina Power and Light (CP&L) PO to Exo Sensors, and associated production and quality records, and (2) performed an inspection of hardware on the shop floor. A description of the inspectors efforts and conclusions in each of these areas is summarized below.

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1. Organization

A review of Exo Sensors current operations indicates that the position of Vice President of Engineering and Quality Assurance was created in August 1984. However, at the time of the inspection the company organization chart had not been updated nor had the duties and authorities associated with the position been spelled out. Nonconformance 2.a was written covering this area.

2. Quality Assurance Program

Based on the numbers and significance of the nonconformances identified during the inspection it was determined that Exo Sensors does not have nor has it ever had a quality assurance program which complies with Appendix B to 10 CFR Part 50. Nonconformance 2.b was written covering this area.

3. Training

The inspectors reviewed the training forms for all production and inspection personnel. The review of production personnel training folders revealed well-organized and documented training and qualification records with the exception of one person performing soldering operations (see "Corrective Action" and "Nonconforming Material"). At the time of the inspection, Exo Sensor had no one in their employ with any Quality Assurance experience. The positions of QA Manager and Quality Engineer were vacant. The President and Vice President of the company were performing receiving and in-process inspections. There were no records of training or qualification which established their ability to perform adequately in the capacity of inspector. Nonconformance 2.b was written covering this area.

4. Design Control

The inspectors reviewed section 3.0 of the QAM on design control and various engineering change notices and shop travellers. The provisions of the QAM appeared sufficient for controlling design and personnel appeared to be complying with provisions to the extent possible in a small company. In certain instances the person who prepared the design or design change also signed off as the company official in another capacity, e.g., Quality Assurance or Manufacturing. However, in no instance among those documents reviewed did the same person sign off as the preparer and as the Engineering representative.

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5. Procurement Document Control

The inspectors reviewed the QAM in this area and found the QAM requirements acceptable. However, implementation of the QAM in this area was not checked due to time constraints.

6. Instructions, Procedures and Drawing

The review of instructions, procedures and drawings and the control thereof is covered under the applicable specific criteria.

7. Document Control

In reviewing production and quality records associated with CP&L PO NY-435288 the following problems were identified:

- a. Exo Sensors has no controls on the revision of or the approval of revisions to shop travellers. In reviewing shop travellers for Hydrogen Analyzer Cabinet Assemblies 4004 and 4005, Remote Control Cabinets 4006 and 4007, Relay Tray Assemblies 3007 and 3009, and Microprocessor Assemblies 3008 and 3010, the following deficiencies were observed:
 - (1) work and inspections being performed prior to approval of the Shop Traveller
 - (2) revisions to drawings and procedures listed on the travellers were being made after approval of shop travellers and performance of inspections with no evidence of subsequent re-approvals of shop travellers or re-inspections of hardware.
 - (3) deletion of operations and inspections, including inspection hold points, after shop traveller approval without subsequent re-approval of the shop traveller.
 - (4) addition of operations and inspections, including inspection hold points, after approval of shop traveller without subsequent re-approval of the shop traveller.

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- b. Engineering Change Notice (ECN) #2 to QOP 052 was added to travellers 3008 and 3010 on 4/3/84, but the ECN was not approved by Engineering, QA, and Manufacturing until 5/31/84. In addition, according to QOP-024 a Procedure Change Notice (PCN) form should have been used rather than an ECN. It was determined by discussions with the Vice President of Engineering and Quality Assurance that PCNs had never been used. QOP-024 had been forgotten or ignored since its origination on 12/8/81.

Nonconformance 2.c was written covering this area.

8. Control of Purchased Material, Equipment, and Services

The inspectors reviewed sections 4.0 and 7.0 of the QAM, QOP-040, the Approved Suppliers List, and POs for safety related parts issued by Exo Sensor to Air Dimensions, General Electric, Control Specialist, and Amerae Corporation.

The review of the QAM revealed conflicting requirements. Paragraph 7.5 and 7.6 allow purchases of material, goods, and services for use in safety related equipment from companies which do not have quality programs and are not on Exo Sensors Approved Suppliers List (ASL). In addition, QOP-040 allows distributors to be placed on the ASL without a questionnaire or a survey by Exo Sensor and Exo Sensor does not perform any verification testing upon receipt. A review of the Exo Sensors PO to Air Dimensions revealed that the PO was placed on 8/25/83, but Air Dimensions was not placed on the AVL until 12/1/83. Nonconformance 2.d was written covering this area.

9. Identification and Control of Material, Parts, and Components

The inspectors reviewed section 8.0 of the QAM and the requirements appear sufficient. There was insufficient time to review the implementation of these provisions, however, there were several Defect Reports written in this area which had not been closed at the time of the inspection.

10. Control of Special Processes

The inspectors reviewed sections 9.0 and 10.0 of the QAM, AWS D1.1, ANSI/ASME N45.2.6, SNT-TC-1A, Ebasco PO NY-435288 and related documents, Welding Procedures 101, 103, 200, 201, 203, Weld Procedure Qualifications, Welder Qualifications, Soldering

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Personnel Qualifications, and Soldering and Welding Inspector Qualifications.

In addition, a visual examination of welded joints on production units on the shop floor was conducted.

As a result of this review it was determined that the annual eye examinations required for visual inspectors had never been performed and there was no documentation for soldering and welding inspector qualification. The visual examination of the structural and piping welds revealed no deficiencies.

During the review of Defect Reports it was discovered that an unqualified person had performed soldering on 21 circuit boards (see 16 and 17 below). This issue was not pursued to determine if the unqualified person had performed other soldering operations due to time constraints. Nonconformance 2.e was written covering this area.

11. Inspection

The inspectors reviewed Section 10 of the QAM and found the provisions sufficient to comply with Appendix B. Shop travellers were reviewed to determine compliance with the provisions of the QAM. During the review it was noted that Exo Sensors was not consistent in indicating when Inspection Hold Points were necessary nor in signing off the traveller indicating that the inspections were performed. Nonconformance 2.f was written covering this area.

12. Test Control

The inspectors reviewed Section 11 of the QAM and various QOPs. QOPs 012, 023, 063 and 064 did not have the required provisions for recording the type, serial number, and calibration due date of any instrumentation used. In addition, QOP-064 only required recording the results of the valve seat closure test if the valves passed, not if they failed. Nonconformance 2.g was written covering this area.

13. Control of Measuring and Test Equipment

The inspectors reviewed Section 12 of the QAM and found that the provisions met the requirements of Appendix B. Implementation of the provisions was not reviewed due to time constraints.

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14. Handling, Storage and Shipping

This area was not reviewed during the inspection.

15. Inspection, Test, and Operating Status

The inspectors reviewed Section 14 of the QAM and found the provisions acceptable with the exception of how material released under a "Conditional Release," paragraph 7.16, will be tracked. Provisions for tracking "Conditional Release" material were lacking. Implementation of QAM provisions was reviewed during the review of the shop travellers for the CP&L job. On shop travellers 4004, 4005, 4006, 4007, 3007, 3008, 3009, and 3010 there were four instances where tests/inspections required prior to continuation of work were not signed off and four instances where manufacturing operations were not signed off. Nonconformance 2.h was issued covering this area.

16. Nonconformancing Materials, Parts, or Components

The inspectors reviewed Section 15 of the QAM, Defect Reports issued for 1983, 1984, and 1985, and the Defect Report Log. The review indicated that Exo Sensors was not closing Defect Reports in a timely manner, that Exo Sensors was performing repairs and rework without documented procedures, and that the QAM does not address how nonconformances discovered as a result of Quality Surveys or Questionnaires are to be documented. Nonconformance 2.i was issued covering this area.

17. Corrective Action

The inspectors reviewed Section 16 of the QAM, Defect Reports for 1983, 1984, and 1985, and Audit Reports for 1982, 1983, and 1984. The review revealed that the QAM does not address how corrective action is achieved for nonconformances discovered as a result of Quality Surveys or Questionnaires; nor does the QAM require that prior production be reviewed to determine if additional corrective action is necessary. As an example, on DR-473, 21 circuit boards were rejected because they were soldered by an unqualified person. However, there was no indication what corrective action had been taken or that the boards had been reinspected. Yet the boards were used in units shipped to Fermi and FitzPatrick Nuclear Plants. Additional prior production boards may have been soldered by the same person but there was

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no evidence that Exo Sensors had investigated prior work performed by the employee. In addition, most Defect Report forms have not been signed off by the company President or the Corrective Action Designator as required by the form. Nonconformance 2.j was issued covering this area.

18. Audits

The inspectors reviewed Section 18 of the QAM and found the provisions acceptable except that the QAM did not require a schedule be established for internal audits until March 1985. A review of the audits conducted revealed that no periodic audits were performed in 1980 and 1981, two areas were audited in 1982, one area was audited in 1983 and no periodic audits were conducted in 1984.

The audits of engineering in 1982 revealed a number of significant deficiencies, but to date there was no evidence that any action has been taken to correct them or close out the audit findings. An external auditor was brought in in 1983 and 1984 to perform an overall audit of the QA program in addition to the internal periodic audits. The audits lasted two days each and had no significant findings. The audits were of questionable quality because they did not detect that internal audits were not being performed, that travellers were not controlled or that Defect Reports were not being closed out in a timely manner. Nonconformance 2.k was issued covering this area.

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DOCUMENTS EXAMINED

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ITEM NO.	TYPE OF DOCUMENT	DOCUMENT NO.	REV.	DATE	TITLE / SUBJECT
1	QAM		6	5/11/84	Exo Sensors, Inc. Quality Assurance Manual
2	QCD			11/84	Exo Sensors, Inc. Users List
3	PO	NY-435288			Carolina Power & Light / Ebasco PO to Exo Sensors
4	SPEC				Ebasco Specification CAR-SH-N-45
5	SPEC				ASME Code, Section IX, Welding Requirements
6	SPEC				AWS-D1.1 Structural Welding Requirements
7	SPEC				SNT-TC-1A NDE Personnel Qualification Requirements
8	SPEC				ANSI B31.1 Piping Requirements
9	SPEC				Ebasco Welding Spec. CAR-SH-ME 15
10	SPEC				Ebasco QA Spec. 860-75
11	QCD				Shop Travellers 4004, 4005, 4006, 4007, 3007, 3009, 3008, 3010
12	PRO				Quality Operating Procedures - 012, 023, 037, 024, 048, 052, 064, 065, 066, 068
13	QCD				Log of Defect Reports

TYPE OF DOC:

DWG - DRAWING
SPEC - SPECIFICATION
PRO - PROCEDURE
QAM - QA MANUAL
QCD - QC DOCUMENT
P.O. - PURCHASE ORDER

LTR - LETTER

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14	QCD				Defect Reports from 1983 to May 1985.
15	QCD			5/3/85	Trip Report on Damaged Equipment at Fitzpatrick Plant
16	QCD			10/27/83	Internal Audit Report on Special Processes
17	QCD			12/10/82	Internal Audit Report on Engineering
18	QCD			5/31/84	Engineering Change Notice #2 for QAP-052
19	DWG			4/9/84	Drawing 117D050 w/ECN #2
20	QCD			1/25/85	Wisconsin Public Service Corp. Audit of Exo Sensors
21	QCD				Personnel Qualification Records (Production and Inspection)
22	QCD				Shop Travellers and Data Accumulation Sheets for
					Hydrogen Sensors - Serial Numbers 957, 958, 959, 960, 961, 962, 966, 967, 946
23	QCD			9/24/82	General Electric Report on Review of Exo Sensors QA Manual
24	QCD			1/21/83	" " " " " "
25	QCD			10/1/82	G.E. Audit of Exo Sensors' QA Program Implementation,

TYPE OF DOC:

DWG - DRAWING
SPEC - SPECIFICATION
PRO - PROCEDURE
QA - QA MANUAL
QCD - QC DOCUMENT
P.O. - PURCHASE ORDER
TIT - TITLING

LTR - LETTER

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1	QAM	20	6	5/11/84	EXO SENSORS, INC. - QUALITY ASSURANCE MANUAL
2	"	SECTION 7	4	3/15/84	CONTROL OF PURCHASED MATERIAL, EQUIPMENT / SERVICES
3	"	SECTION 8	4	3/15/84	IDENTIFICATION & CONTROL OF MATERIAL, PARTS & COMPONENTS
4	"	SECTION 12	5	5/11/84	CONTROL OF MEASURING & TESTING EQUIPMENT
5	PRO	QOP-055	1	2/7/84	QUALITY OPERATING PROCEDURE VISUAL INSPECTION OF WELDS
6	"	# 103	1	10/28/81	WPS GTAW - MANUAL, PAR, QW
7	"	# 101	2	10/6/81	WPS GTAW - MANUAL, PAR
8	"	# 202	2	1/16/85	WPS GTAW - MANUAL, PAR
9	"	# 200	3	2/28/84	" "
10	"	# 201	3	2/28/84	" "
11	PO	8401		7/16/84	NORTHEAST UTILITIES/PO #829060/EX-CONTAINMENT H ₂ MONITORING SYSTEMS
12	QUALIFICATION RECORDS	5.4			EMPLOYEE QUALIFICATION RECORDS
13	TRAINING RECORDS	5.3			EMPLOYEE TRAINING RECORDS
14	DWG	111D007		2-7-84	DRAIN RESERVOIR
15	"	1140003		7-15-84	DETECTION CHAMBER DETAILS

TYPE OF DOC:

DWG - DRAWING
SPEC - SPECIFICATION
PRO - PROCEDURE
QAM - QA MANUAL
QCD - QC DOCUMENT
P.O. - PURCHASE ORDER
INH - INTERNAL MEMO

LTR - LETTER

INSPECTOR J.C. HARPER

SCOPE EXO - SENSERS

DOCUMENTS EXAMINED

DOCKET NO. 99901015
 REPORT NO. 85 - 01
 PAGE 2 OF 2

ITEM NO.	TYPE OF DOCUMENT	DOCUMENT NO.	REV.	DATE	TITLE / SUBJECT
16	DWG	116D121		10-13-83	#1 Remote Enclosure FAB.
17	"	"		"	#2 " " "
18	"	116D131		9-15-83	CABINET FAB
19	"	116D021		8-26-83	FAB Enclosure
20	QOP-067		0	5-28-85	SUBSTANTIAL SAFETY HAZARD REPORTING PERIOD
21	PO	E0062		8/25/83	AIR DIMENSION INC / CLASS I E CONTAINMENT PUMP
22				6/6/84	QUALITY CONTROL VENDOR SURVEILLANCE REPORT.
23	PO	E0386		5/7/84	GENERAL ELECTRIC - MOTOR STARTER
24				12/1/83	SUPPLIER QUALITY SURVEY - A.R. DIMENSION, INC
25	PO	E0429		5/21/84	AMERCO CORP. CONTROL PRODUCTS DIV - BUCHANAN TERMINAL BOARD
26	PO	E0816		12/27/84	CONTROL SPECIALIST - ASCO SOLENOID VALVE
27	PO	E0816		12	
27	Audit Report			5/21/84	STONE & WEBSTER Engineering Co. of Exo Sensors Inc
28	Audit Report			5/6/83	EBASCO SERVICES Incorporated

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