

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-322/89-07
Docket No. 50-322
License No. NPF-82
Licensee: Long Island Lighting Company
P. O. Box 618
Shoreham Nuclear Power Station
Wading River, New York 11792
Facility Name: Shoreham Nuclear Power Station
Inspection At: Shoreham, New York
Dates: August 29, 1989 - November 9, 1989
Reporting
Inspector: F. J. Crescenzo, Senior Resident Inspector

Approved by: L. T. Doerflein
L. T. Doerflein, Chief, Reactor Projects Section 2B

1/4/90
Date

Inspection Summary: 8/29/89 - 11/09/89 (Report 50-322/89-07)

Areas Inspected: Routine inspection of operations, maintenance, surveillance, committee activities and license conditions. One hundred and eighty hours of direct inspection effort were expended.

Results: A non-cited violation was observed in the area of containment leak rate testing. The licensee's decision to defer leak rate testing resulted in multiple instances (22) where primary containment penetrations exceeded the 2 year interval for type B and C tests prescribed by 10 CFR 50, Appendix J. The licensee continued developing plans to preserve facility systems and reduce workloads. Planned staffing cuts at the facility have diminished although personnel continue to leave voluntarily.

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DETAILS

1.0 Facility Activities

The facility remained shutdown throughout the inspection period with all fuel in the spent fuel pool. The licensee devoted most of its technical efforts on developing the System Layup Implementation Packages (SLIP). Only two of these have been approved; none have been fully implemented. The licensee completed blowdown and "dryout" of the core spray system. An Unusual Event was declared on October 16, 1989 based on indications of equipment tampering. A minor fire caused extensive localized damage to an onsite diesel generator (not a safety related system). The licensee experienced diesel fuel oil problems throughout the period. The licensee improperly implemented deferral of primary containment leak rate testing which resulted in multiple examples of a violation of the 10 CFR 50 Appendix J frequency requirements.

2.0 Declaration of Unusual Event

On October 16, 1989 an Unusual Event was declared based on indications of unauthorized tampering with the fire protection system.

A fire protection water deluge system actuation was received at 8:46 a.m. Field investigation found no fire and attributed the actuation to unauthorized manual triggering of the local actuator. The actuator is located at the 13 foot level of the reactor building. The design and location of the actuator station are such that accidental actuation is highly unlikely. In the process of securing the system, operators noted gross leakage from a hose station on the 75 foot level in the Reactor Building.

Based on these indications and in accordance with event classification instructions of Emergency Plan Implementing Procedure (EPIP) 1-0, Event Category 13, "Security Threats," the Watch Engineer classified the event as "attempted sabotage" and declared an Unusual Event (UE). The UE was declared at 9:35 a.m. EPIP 1-1, "Notification of Unusual Event," and other subordinate procedures were executed by the onsite emergency response organization.

The onsite security force responded per SP-00.021.01 "Security Alert," (Safeguards Information). The inspector verified that required actions of this procedure were properly implemented.

No other abnormalities were noted by the licensee. The operations department promptly reset and secured the deluge system. The fire hose station leak was found to be caused by a failed gasket, not tampering. The deluge sprinklers doused a vertical cable tray in the Reactor Building. No equipment damage was noted as a result of the actuation. No equipment or systems required to be operable were threatened by the water deluge. The water released during actuation from both the sprinkler and the leaky hose station caused minor flooding in the Reactor Building lower level. The floor drain system adequately handled the water. The water in the deluge system is not radioactive nor is it considered potentially radioactive. No onsite spread of radioactive contamination was anticipated and none occurred. Based on the above actions and conclusions, the Unusual Event was declassified at 10:25 a.m.

The licensee conducted a detailed inspection of equipment in the Reactor Building to identify components which had been wetted by the water. None of the components were damaged and any wetting was minor.

The inspector observed activities in the control room during the event. The participants adequately followed Emergency Plan Implementing Procedures. Required notifications were accomplished within prescribed time limitations. The State of New York and Suffolk County were contacted via commercial phone line following their failure to answer the Radiological Emergency Communications System (RECS). Effective training of the onsite control room participants was evident by the smooth flow of information and effective supervision.

The inspector noted that the Control Room staff acted appropriately to classify the event per the EPIP. However, the limited number of emergency action levels in the procedure led the operators to classify the incident as "attempted sabotage." The inspector discussed with the licensee the need for a revised classification to evaluate events such as this as something less than "attempted sabotage." "Attempted sabotage" implies a more serious threat to systems required to maintain fuel integrity and radiological safety. At no time during this event was there any degradation in, or threat to, the fuel integrity or radiological boundaries. The licensee acknowledged the inspectors' comments and is considering whether to change the classification.

The licensee is continuing an investigation into the cause for this event. The inspector had no further questions at this time.

3.0 Diesel Generator Fire

On September 27, 1989, an electrical fire occurred in a local control panel for the 402 Electro Motive Division (EMD) diesel. The fire was confined to the panel and was extinguished shortly after discovery. The affected panel was gutted by the fire. The panel contains apparatus common for the other three EMD diesels and as a result, these machines were disabled.

The EMD diesels are individually housed in railcar skid structures located in the protected area but not in or near any safety related structures or components. The EMDs are not safety rated or important to safety. The EMDs were brought onsite - "temporary" auxiliary power sources to support initial fuel load licensing. This was to compensate for the gross failures found during pre-operational testing of the Trans-American-Delaval (TDI) diesels which were to be the standby AC sources. The TDI problems were subsequently resolved and all requirements for the EMD's were omitted from the low power and subsequent full power licenses. The licensee elected to keep the EMD's onsite and periodically uses them for system grid voltage peaking.

The 401 and 402 had been running (loaded) as part of a vibration measurement's test. The equipment operator (EO) was experiencing difficulty in startup of the 404 machine when he noted white smoke billowing from the 402 generator. The Watch Supervisor (WS) was in the area and he directed the EO to trip the machine, (the output breaker auto tripped). The WS discharged portable CO2 extinguishers at the fire. This was immediately effective but after a rekindling, the site fire brigade was assembled and the fire was successfully extinguished within 10 minutes. The fire began, and was confined to, a control panel located within the EMD 402 railcar skid housing. The panel was destroyed. The motor and generator were unaffected and no fuel oil was involved in the fire. The affected panel contains common circuitry for certain controls of the other three machines. All four machines were thus disabled by the fire.

The licensee has not conclusively determined the cause for the fire. It is believed that a faulted fuse assembly created a phase to phase short and started the fire. This cannot be confirmed due to the extensive damage caused by the fire.

The licensee had been contemplating moving the four diesels to another location. Partly for this reason, repair of the 402 has been deferred. Recently, the licensee completed repairs to allow operation of the other three machines.

The inspector found the licensee's actions adequate. The fire was promptly extinguished. There were no challenges to safety related structures or components. Although the root cause investigation and repairs have been slow, there are no license requirements or nuclear safety reasons to justify such prompt actions. The inspector had no further questions.

4.0 Diesel Fuel Oil Problems

The licensee has experienced diesel fuel oil problems. The problems have been manifested in failed fuel oil sample analysis. The problem has been complicated by numerous analysis inconsistencies.

There are ten diesel and two gas turbine generators at Shoreham. These include three TDIs (standby AC source required by Technical Specifications), the four EMDs and three Colt Pielstik diesel generators. Each of the TDI and Colt machines have an individual 7 day supply tank. The four EMDs are supplied from a common tank which is not sampled and analyzed to the same specifications as the TDI and Colt machines and has thus not failed any sample analysis.

The TDI and Colt fuel oil tanks are fed from a one million gallon storage tank located outside the protected area. This tank also supplies the two gas turbine generators and the EMDs. Bulk fuel deliveries from offsite vendors are made to this tank. A "ferry" tanker is then used to transfer the oil to the TDI, Colt, and EMD tanks.

A quarterly sample of tank 132A (7 day supply for EDG-101, TDI) was obtained on August 10, 1989. The analysis was performed by the licensee's qualified contractor Saybolt. The analysis failed oxidation stability, one of the parameters analyzed. EDG-101 was declared inoperable and a confirmatory sample was obtained. This sample also failed analysis, but results varied widely prompting the licensee to obtain a third, large batch sample. This sample was split, half sent to Saybolt and the other to an unqualified analysis contractor, Caleb Brett for confirmation. The sample sent to Saybolt passed the analysis and the split sent to Caleb Brett failed.

Subsequent to this, the licensee obtained, at various times, samples from the remaining five diesel tanks, the ferry tanker, and the million gallon tank. All tanks, except the ferry tanker, have failed one or more of the analyzed parameters. Confirmatory samples analyzed by the normal and alternate contractors have provided inconsistent results similar to those described above. In addition, other parameters such as cloud point, water and sediment, and "Dupont Stability" (a confirmatory analysis designed to provide similar data as oxidation stability), have variously failed the analysis in one or more of the tanks but in no apparently consistent pattern.

The licensee initially suspected sampling or analysis errors. The licensee had its Quality Control Inspectors monitor the most recent samples and its chemistry technicians observed the analysis at the contractor's facility. Also, an annual audit was conducted of the Saybolt contractor. No discrepancies were noted.

The licensee has concluded that the oil is defective but has not determined a root cause. The three tanks were cleaned and tested last spring and it is possible that residual cleaning solvents may be affecting the samples. The oil vendor has stated that some of his suppliers have started using a new refining process which may affect ability of the oil to conform with the analysis over time. Also, the licensee recently added a biocide agent to the oil which might affect analysis.

The licensee has declared the three TDI machines inoperable until the problem is resolved. The licensee has been frustrated in resolving the problem because of the sample inconsistencies. These problems have not been seen at Shoreham before this summer although the sampling procedures and analysis contractor have been the same for several years. The licensee is reluctant to replace the oil until the source of the problem has been identified and resolved. The inspector noted that although the TDI machines are inoperable per Technical Specifications, they are still capable of operating and all three are in the standby mode at this time.

The licensee has consulted with a contractor who claims to be capable of "cleaning" the oil through use of a special filter apparatus. The licensee is also considering replacing the oil altogether. The inspector concluded that the licensee's actions to investigate this matter have been conservative and are consistent with license requirements.

5.0 Preservation Activities

The licensee has continued with its plans to layup or preserve systems. A more detailed description of these plans is provided in Inspection Report 50-322/89-91. Progress has continued in development of System Layup Packages. To date only two of these have been approved by the Review of Operations Committee (ROC). These were later sent back to the Operations Engineering Group for more work of an administrative nature and were not implemented.

Preparation work continues for other system packages and it appears that this activity is somewhat behind schedule. It is likely that a number of packages will be approved and implemented close to the year's end.

The licensee has completed procedures to drain and blow down the Core Spray System. This was not accomplished according to a SLIP package instruction, but rather a new procedure generated specifically to accomplish the blowdowns. The licensee is testing the blowdown and air dryout process to determine its feasibility for other systems.

The inspector observed selected portions of the drain, blowdown, and dryout. The system was initially drained, then an air header was attached and residual water blown out. Air was allowed to continue purging the system for several days, and humidity samples were obtained from the exhaust points. A temporary, high-volume compressor was leased and brought on-site to accomplish these activities. The licensee has recently decided to purchase two of these machines for permanent use. It is anticipated that they will be available for use in December.

The licensee has noted minor leakage from the suppression pool past the Core Spray isolation valves into the drained piping. It is presumed that this will frustrate plans to maintain low humidity in the drained systems. The licensee is considering whether to drain the pool and is evaluating whether this is allowable under current license and procedural restrictions. This appears to be a major reason for delay in implementation of the SLIP program.

The inspector found the above activities were adequately performed in accordance with approved station procedures. The inspector made no judgement as to the effectiveness of the "dryout" or blowdowns as these relate to system preservation.

6.0 Staffing

Staffing levels have remained stable although several key personnel recently resigned. These include the Plant Manager, Operations Engineering Manager and three Operations Engineers. This group has been responsible for developing the layup program. The licensee has assigned these functions to contractors. The Instrument and Controls Engineer and Computer Engineer have also announced their intentions to resign from LILCO.

The licensee has had to cut the number of control room operating shifts from six to five. Also, the licensee is hiring more Equipment Operators (EO) to account for recent attrition. An EO qualification class is planned for the near future. Overtime usage for on-shift personnel was heavy but decreased to normal following the cutback to a five shift rotation.

7.0 Deferral of Containment Leak Rate Testing

7.1 Background

As part of the "minimum posture" development process, the licensee considered whether to defer containment leakage testing. These considerations began during the summer 1989. Various options were considered. These were: continuance of the program; deferral of the program with and without notification of the NRC; and deferral following an application for, and receipt of, an exemption to the frequency requirements of Appendix J.

In early September, the licensee discussed the various options with the Senior Resident Inspector. The inspector concluded that there appeared to be an adequate technical basis for deferral, but the licensee should formally notify the NRC of its decision to defer either through a letter of intent or through an exemption request.

On or about October 1, 1989, the licensee decided to defer containment leakage testing. On October 3, 1989 penetration X-22A (type B) exceeded its 24 month testing interval. Subsequently, a number of other type B and C penetrations came due and also exceeded the 24 month intervals. A licensee generated listing of penetrations and due dates through the end of December is displayed in Attachment 1 to this report. The type A test (Integrated Leak Rate Test) is still within the required test interval.

As indicated on Attachment 1, a total of 22 penetrations exceeded their Appendix J required due date during this inspection period. When reviewing Attachment 1 it should be noted that penetrations X-27, X-28, and X-29 are required to be tested semiannually per Technical Specification 3/4.6.1.8. This is in addition to the 24 month test requirement of Appendix J. These are listed as overdue because the semiannual test was deferred. The penetrations are current for the 24 month requirements. The personnel hatch is also tested semiannually per specification 3/4.6.1.3 and is overdue because of deferral of this test. In both instances, deferral of

semiannual testing during periods when containment is not required is allowed by the Technical Specifications and by Appendix J. Also it should be noted there are a number of "spare" penetrations. Typically, these consist of an empty pipe penetrating containment with a welded seal on the primary containment side of the pipe and a test port on the secondary containment side. Technically, these penetrations do not fall under the classification of components subject to type B or C testing as defined in Appendix J. Despite the hybrid nature of "spare" penetrations, the licensee has always subjected the spares to 24 month leak rate testing at test pressure Pa.

On October 17 and 19, 1989, the new Plant Manager met with regional and NRR managers, respectively. The meetings were held at the licensee's request to allow the new Plant Manager to introduce himself and to provide an update on activities at the site. During these discussions, LILCo informed the Region and NRR of the decision to defer Appendix J testing. NRR informed the licensee that an exemption request would be required to allow the deferral.

In a LILCo (W. E. Stieger, Jr.) letter SNRC-1644 to NRC (Document Control Desk), dated November 3, 1989, the licensee stated its intention to defer 10 CFR 50, Appendix J containment leakage testing at Shoreham. The letter justified the deferral by arguing that the rational for Appendix J testing was not applicable when no fuel was in the primary containment or when primary containment is not required to be operable by the Technical Specifications. The licensee also committed to performing any deferred testing prior to resuming operations requiring primary containment.

7.2 Containment Leak Rate Testing Requirements

Requirements for primary containment leak rate testing at Shoreham are provided in 10 CFR 50 and in the plant's Technical Specifications. 10 CFR 50.54, "Conditions of Licenses," states:

"Whether stated therein or not, the following shall be deemed conditions in every license issued:"

Included in these conditions is 10 CFR 50.54 (o) which states:

"Primary reactor containments for water cooled power reactors shall be subject to the requirements set forth in Appendix J to this part."

10 CFR 50, Appendix J, III.D.2. "Periodic Retest Schedule," "Type B tests" states:

"Type B tests, except tests for air locks, shall be performed during reactor shutdown for refueling, or other convenient intervals, but in no case at intervals greater than 2 years."

10 CFR 50, Appendix J, III.D.3 "Periodic Retest Schedule," "Type C Tests" states:

"Type C tests shall be performed during each reactor shutdown for refueling but in no case at intervals greater than 2 years".

Shoreham Technical Specifications section 3/4.6.1.2 for containment leakage testing reflect the requirements of 10 CFR 50 Appendix J with certain subtle but substantial differences.

Specification 4.6.1.2 implements Appendix J testing and requires testing of Type B and C penetrations at intervals "no greater than 24 months...". The Limiting Condition for Operation (LCO) for containment leakage 3.6.1.2 is applicable when primary containment is required to be operable which is in operational conditions 1, 2, and 3. Primary containment is therefore not required to be operable in Shoreham's current defueled mode. Also, the primary containment has been inoperable since June 20, 1989 due to, among other things, the expiration of the full volume test on the personnel hatch. Lastly, there are no plans to enter operational modes requiring primary containment. These circumstances are allowable per the Technical Specifications.

Application of specifications 4.0.1 and/or 4.0.3 could support a conclusion that surveillance requirements of specification 4.6.1.2 need not be conducted when the primary containment is not required to be operable or is in fact inoperable. Therefore, consideration of Technical Specifications alone, (i.e., absent consideration of 10 CFR Appendix J), would support a reasonable conclusion that containment leak rate testing could be deferred at Shoreham. However, NUREG-0420, "Safety Evaluation Report," for Shoreham does not address or otherwise recognize an exemption from the 2 year interval requirements of Appendix J. Therefore, the licensee is obligated to comply with the interval requirements of Appendix J notwithstanding any contrary interpretations of the Technical Specifications. Variance from interval requirements of Appendix J would require NRC approval prior to implementation.

7.3 Findings

The deferral of Appendix J testing has resulted in numerous instances where primary containment type B and C penetrations have exceeded the maximum 2 year test intervals specified in 10 CFR 50 Appendix J. A complete listing of the penetrations and their due dates is displayed in Attachment 1. This is an apparent violation of 10 CFR 50 Appendix J frequency requirements with multiple examples (NCV 50-322/89-08-01). The safety significance of this violation is minimal as primary containment is not required in the current plant status. Also, the licensee initiated corrective action to perform the Appendix J testing. Therefore, in accordance with 10 CFR 2 Appendix C, Section V.A. a notice of violation will not be issued.

The inspector found the the licensee's submittal in SNRC-1644 to be inadequate. SNRC-1644 provides a basis to support an NRC exemption from the requirements of Appendix J; however, it does not request an exemption. The licensee acted improperly in choosing to implement deferral prior to obtaining an NRC granted exemption from the applicable regulations.

The inspector found no elements of willful or intentional actions to violate NRC requirements on the part of the site management. The licensee was forthcoming with the NRC and acted in apparent good faith to comply with NRC requirements. This was evidenced by the licensee's discussions with the resident inspector and with the Regional and NRR management. Deferral of testing was supported by reasonable arguments although these resulted in premature implementation. The Technical Specifications are ambiguous in this area and may conflict with Appendix J.

There is no apparent impact of any safety significance resulting from the penetrations exceeding the test intervals. There is no requirement or basis for operability of primary containment in the current defueled mode. The licensee has opted to leave the primary containment open to the secondary containment for ease of atmosphere sampling requirements. There is no fuel or significant levels of contamination in the primary containment.

Also, there is no apparent impact on plant preservation resulting from deferral of the testing. There is no basis to conclude or suspect that deferral would contribute to increased degradation of leakage boundaries. Further, Appendix J does not require immediate repair of failed penetrations and thus would allow the licensee to defer repairs until power operations were resumed.

In summary, the inspector found the licensee acted improperly in choosing to defer Appendix J testing prior to getting an exemption from the NRC. However, for the reasons stated above, the safety significance of this violation is minimal.

8.0 Management Meetings

Periodic meetings were held with station management to discuss inspection findings during the inspection period. A summary of findings was also discussed at the conclusion of the inspection. No proprietary information was covered within the scope of the inspection. No written material was given to the licensee during the inspection period.

November 7, 1989

Following is a list of LLRT related primary containment penetrations that have exceeded their extension dates or will exceed their extension dates by December 31, 1989:

PENETRATION	VALVE NUMBERS	LEAK RATE (scfd)	DATE LAST TESTED	EXTENSION DATE
Personnel Hatch	(Full Volume)	156.24	02/23/89	06/20/89
X-27	1T46*AOV-039A	19.68	12/09/88	07/27/89
X-27	1T46*AOV-039B	19.68	12/09/88	07/27/89
X-28	1T46*AOV-038C	19.92	01/19/89	09/06/89
X-28	1T46*AOV-038D	19.92	01/19/89	09/06/89
X-22A	1P42*MOV-035	0.0	09/21/87	10/03/89
Elect. Penet.	1T23*2-WD2	0.0	09/29/87	10/11/89
X-14	SPARE	0.0	10/05/87	10/17/89
XS-26	SPARE	0.0	10/05/87	10/17/89
XS-28	SPARE	0.0	10/05/87	10/17/89
X-34	SPARE	0.0	10/08/87	10/20/89
XS-2	SPARE	0.0	10/08/87	10/20/89
XS-3	SPARE	0.0	10/09/87	10/21/89
XS-11	SPARE	0.0	10/09/87	10/21/89
XS-12	SPARE	0.0	10/09/87	10/21/89
XS-13	SPARE	0.0	10/09/87	10/21/89
XS-14	SPARE	0.0	10/09/87	10/21/89
X-29	1T46*AOV-039C	0.0	03/10/89	10/26/89
X-29	1T46*AOV-039D	0.0	03/10/89	10/26/89
XS-1	SPARE	0.0	10/15/87	10/27/89
XS-15	SPARE	0.0	10/15/87	10/27/89
XS-17	SPARE	0.0	10/15/87	10/27/89
X-35	SPARE	0.0	10/15/87	10/27/89
X-40	SPARE	0.0	10/15/87	10/27/89
XS-25	SPARE	0.0	10/16/87	10/28/89
X-42	1E51*MOV-049	29.76	10/26/87	11/07/89
XS-30	1T48*OIV-0016B	8.16	10/27/87	11/08/89
XS-30	1T48*SOV-131	5.28	10/27/87	11/08/89
XS-22	1T46*AOV-078A	19.68	10/27/87	11/09/89
XS-22	1T46*AOV-078B	2.472	11/10/87	11/22/89
XS-18	SPARE	0.0	10/30/87	11/11/89
XS-19	SPARE	0.0	10/30/87	11/11/89
X-2A	1B21*AOV-036A	2.472	11/05/87	11/17/89
Equip. Hatch	(Full Volume)	147.6	05/19/89	11/18/89
X-2B	1B21*18V-1103B	34.56	11/06/87	11/18/89
X-2B	1B21*AOV-036B	9.84	12/02/87	12/14/89
XS-6	1G41*MOV-034A	0.0	11/16/87	11/28/89
XS-6	1G41*MOV-034B	6.48	11/16/87	11/28/89
X-9B	1E11*MOV-031B	0.0	11/17/87	11/29/89
X-9D	1E11*MOV-031D	5.04	11/17/87	11/29/89
X-4	1G33*MOV-033	0.0	11/19/87	12/01/89
X-4	1G33*MOV-034	0.0	11/19/87	12/01/89
XS-16A	1P50*02V-0603	0.0	11/21/87	12/03/89

PENETRATION	VALVE NUMBERS	LEAK RATE (scfd)	DATE LAST TESTED	EXTENSION DATE
XS-16A	1P50*02V-0601	0.0	11/21/87	12/03/89
XF-11	1B31*01V-0002B	12.24	11/21/87	12/03/89
XF-11	1C11*01V-1028B	0.0	11/21/87	12/03/89
X-21B	1E21*MOV-031B	0.0	11/24/87	12/06/89
X-9C	1E11*MOV-031C	0.0	11/27/87	12/09/89
X-6A	1E11*MOV-037A	32.16	11/28/87	12/10/89
X-26	1T46*AOV-038A	0.0	04/25/89	12/11/89
X-26	1T46*AOV-038B	0.0	04/25/89	12/11/89
X-20A	1E21*MOV-033A	0.0	12/03/87	12/15/89
X-20A	1E21*AOV/MOV-081A	0.0	12/03/87	12/15/89
X-19	1E51*MOV-032	0.0	12/04/87	12/16/89
X-18	1E51*02V-0025	0.0	12/08/87	12/20/89
X-18	1E51*MOV-046	0.0	12/08/87	12/20/89
XS-7	1T48*MOV-034B	0.0	12/09/87	12/21/89
XS-7	1T48*MOV-040B	12.48	12/09/87	12/21/89
XF-10	1C11*01V-1028A	0.0	12/11/87	12/23/89
XF-10	1B31*01V-0002A	5.04	12/18/87	12/30/89
X-36	1C41*02V-0008	6.24	12/14/87	12/26/89
X-36	1C41*02V-0010	1.25	12/14/87	12/26/89
B-3	1T48*SOV-128A	0.0	12/16/87	12/28/89
B-3	1T48*SOV-128B	0.0	12/16/87	12/28/89
X-10A-3	1E11*01V-0047	0.0	12/17/87	12/29/89
X-10A-3	1E11*SOV-168	0.0	12/17/87	12/29/89
X-10B-4	1E11*01V-0048	0.0	12/17/87	12/29/89
X-10B-4	1E11*SOV-169	0.0	12/17/87	12/29/89