

JAERI - M
89-113

SUPPLEMENTAL DESCRIPTION OF ROSA-IV/LSTF
WITH NO. 1 SIMULATED FUEL-ROD ASSEMBLY

September 1989

The ROSA-IV Group

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編集兼発行 日本原子力研究所
印刷 いばらき印刷(株)

Supplemental Description of ROSA-IV/LSTF
with No.1 Simulated Fuel-rod Assembly

The ROSA-IV Group

Department of Reactor Safety Research
Tokai Research Establishment
Japan Atomic Energy Research Institute
Tokai-mura, Naka-gun, Ibaraki-ken

(Received August 3, 1989)

Forty-two integral simulation tests of PWR small break LOCA (loss-of-coolant accident) and transient were conducted at the ROSA-IV Large-Scale Test Facility (LSTF) with the No.1 simulated fuel-rod assembly between March 1985 and August 1988. Described in the report are supplemental information on modifications of the system hardware and measuring systems, results of system characteristics tests including the initial fluid mass inventory and heat loss distribution for the primary system, and thermal properties for the heater rod materials. These are necessary to establish the correct boundary conditions of each LSTF experiment with the No.1 core assembly in addition to the system data given in the system description report (JAERI-M 84-237).

Keywords: ROSA-IV, LSTF, PWR, Integral Simulation Test, LOCA, Transient,
Modified System Data, System Characteristics, Thermal Property
Data

CONTRIBUTORS

ROSA-IV Group : Thermal-Hydraulics Safety Research Laboratory

Kanji TASAKA (Project Leader, Supervision)
Mitsuhiro SUZUKI (Principal Author, Chapters 1,2,4,5 and Appendices)
Yutaka KUKITA (Chapters 1 through 4)
Yoshinari ANODA (Chapter 2 and Sections 4.2 and 4.4)
Hiroshige KUMAMARU (Chapter 3)
Hideaki ASAKA (Section 4.5)
Hideo NAKAMURA (Principal Author, Chapter 3)
Taisuke YONOMOTO (Chapter 5)
Hideo MURATA (Chapter 5)
Nobuo YAMAMOTO (Chapter 3 and Appendices B and C)
Jiro KATAYAMA (Section 4.2)
Kazuo HIRATA(*1) (Sections 2.4 and 4.2)
Hiroyori MURAKAMI(*1) (Appendix C)
Mikiya FUJII(*1) (Sections 2.5 and 4.3)
P.CLEMENT(*2) (Section 4.2)

ROSA-IV Group : Safety Facility Engineering Service Division

Motoji SHIMIZU (Chapters 2 through 5)
Tomosaburo OHKI (Chapters 2 through 5)
Yoshiyuki HANAWA (Chapters 2 through 5)
Hideo ITOH (Chapters 2 through 5)
Hideki OHSAKI (Chapters 2 through 5)
Takao OHWADA (Chapters 2 through 5)
Tomotoshi NISHIKIZAWA (Chapters 2 through 5)
Masayuki OGAWA (Chapters 2 through 5)

*1 On leave from Sumitomo Heavy Industry Ltd. (SHI)

*2 On leave from Commissariat a l'Energie Atomique (CEA), France

1次燃料集合体を用いた ROSA-IV / LSTF の概要増補版

日本原子力研究所原子炉安全工学部

ROSA-IV グループ

(1989年8月3日受理)

ROSA-IV計画では、大型非定常試験装置(LSTF)において、1次模擬燃料集合体を用い、1985年3月から1988年8月までに計42回の総合実験を実施した。本報には、この間に実施したLSTF装置及び計装上の変更点、新たなシステム特性試験の結果(流体容積分布と熱損失を含む)及びヒーターロッド材質の物性値を示す。これらは、既報の装置の説明書(JAERI-M 84-237)の増補的役割を持ち、1次炉心を用いたLSTF実験の正確な境界条件を知る上で必要不可欠なものである。

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Abbreviations

ACC-Cold	: Cold water accumulator
ACC-Hot	: Hot water accumulator
ADQ	: Automatic data qualification
CA	: Chromel-Alumel thermocouple
CB	: Core barrel
CL-A,CL-B	: Cold leg of primary loop-A, Cold leg of primary loop-B
COL-A,COL-B	: Cross-over leg of primary loop-A, Cross-over leg of primary loop-B
CP	: Conduction probe
CPT	: Conduction probe with thermocouple
DC	: Downcomer
DP	: Differential pressure measurement
DT	: Temperature difference measurement
ECC	: Emergency core coolant
ECCS	: Emergency core cooling system
FE	: Flow rate measurement
HLA,HLB	: Hot leg of primary loop-A, Hot leg of primary loop-B
HPIS	: High pressure injection system
JC	: Jet condenser
LCP	: Lower core plate
LOCA	: Loss-of-coolant accident
LPIS	: Low pressure injection system
LSA,LSB	: Loop Seal A, Loop Seal B
LSTF	: Large Scale Test Facility
LE	: Liquid level measurement
MF	: Momentum flux measurement
MI	: Miscellaneous measurement
PA	: Auxiliary feedwater pump
PCA,PCB	: Reactor coolant pump in primary loop-A, Reactor coolant pump in primary loop-B
PE	: Pressure measurement
PF	: Main feedwater pump
PH	: High pressure injection pump
PJ	: Charging pump
PL	: Low pressure injection pump
PORV	: Power operated relief valve
PPR	: Pressurizer spray pump
PR	: Pressurizer
PV	: Pressure vessel
PWR	: Pressurized water reactor
RHR	: Residual heat removal system
RO	: Orifice
ROSA-IV	: Rig of Safety Assessment Number 4
RV	: Relief valve
RWST	: Simulated refueling water storage tank
SBLOCA	: Small break loss-of-coolant accident
SGA, SGB	: Steam generator A, Steam generator B
ST	: Break flow storage tank
SV	: Safety valve
TC	: Thermocouple
TE	: Fluid temperature measurement
UCP	: Upper core plate
UCSP	: Upper core support plate
UH	: Upper head
UP	: Upper plenum

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1. Introduction

The Japan Atomic Energy Research Institute has been conducting the Rig-of-Safety Assessment No.4 (ROSA-IV) program since 1980 to study, both experimentally and analytically, thermal-hydraulic responses of a Westinghouse-type pressurized water reactor (W-type PWR) during small-break loss-of-coolant accidents (SBLOCAs) and various plant transients. This program comprises three major tasks, which are (i) to conduct large-scale integral tests on PWR plant behavior using the Large-Scale Test Facility (LSTF), (ii) to conduct separate-effects tests using the Two-Phase Flow Test Facility (TPTF), and (iii) to develop and assess advanced computer codes.

The LSTF, shown in Figs.1.1 and 1.2, is a 1/48 volumetrically-scaled, full-height, full-pressure simulator of the W-type 4-loop (3423 MWt) PWR. From the completion of the LSTF in March 1985, forty-two integral tests were conducted before the testing was interrupted between September 1988 and March 1989 for replacement of the simulated fuel-rod assembly. These forty-two tests conducted with the first core assembly consisted of twenty-nine SBLOCA tests, ten natural circulation tests and three abnormal transient tests.

The purpose of this report is to supplement and amend a previous document on the LSTF System Description Report⁽¹⁾, JAERI-M 84-237 issued in January 1985, which described essentially the "as-designed" facility configuration and test instrumentation. The descriptions in the report⁽¹⁾ need to be amended, for several areas, not only because of the differences between the "as-designed" and actual system configuration, but also due to several modifications which were made to the facility hardware and instrumentation before August 1988. In addition to these, descriptions on the system characteristics test results and thermal property data of the simulated fuel-rod (heater rod) materials are presented in this report. These are necessary to analyze the test results for correct boundary conditions.

The major hardware changes, described in Chapter 2 of this report and also summarized in Appendix A, include (i) removal of the steam generator (SG) plenum filler blocks, (ii) repair of internal leaks in pressure vessel (PV) and SG plenum, (iii) installation of an additional auxiliary feedwater pump, and (iv) preparation of newly-designed break orifices.

The modifications to the measuring system, described in Chapter 3,

include installation of additional two-phase flow instruments and enhanced differential pressure measurements for SGs. Chapter 3 also describes the three different core power curves used for the No. 1 core tests, as well as the changes in the power control logics. The historical records of installations and modifications of the test instrumentation are given in Appendix B.

Results of the system inventory measurements and characteristics tests are briefly described in Chapter 4. These measurements and tests were performed to define (i) the internal volume distribution in PV and SG secondary sides (Ref. 2), (ii) the total volume in the primary system (Ref. 3), (iii) the heat loss distribution over the primary system and SG secondary sides, (iv) the upperhead spray-nozzle leak characteristics (Ref. 4), and (v) the irreversible pressure drop distribution along the primary loops.

Finally, the thermal properties of the core heater rod materials are presented in Chapter 5. Appendix C presents the thermal properties of the pressure-boundary structure materials as well as their weights, and Appendix D presents experimental data taken during the latest heat loss test. All the LSTF integral tests and spray-nozzle leak tests, conducted with the No. 1 core, are listed in Appendix E.

2. Modifications to LSTF System Hardware

2.1 Removal of SG-Plenum Filler Blocks

Semi-cylindrical filler blocks had been installed in the SG plena before the initiation of the integral tests, to simulate the 1/24 scaled PWR SG-plenum fluid volume (see Table 5.3.2 (c) and Fig.5.3.4 (a) in Ref.1). However, the filler blocks made of pure aluminium had to be removed from the SG plena, because they were significantly damaged by corrosion during hot shakedown tests. Therefore, the filler blocks did not exist in the plena for all the integral tests. The metal volume of each filler block was 0.1733 m^3 .

The removal of these filler blocks changed both the fluid volume and configuration of the SG plenum (see Fig.2.1). Each SG plenum fluid volume increased from 0.1740 m^3 to 0.3473 m^3 . The total volume increase of 0.6932 m^3 for the two primary loops was approximately 9% of the total primary volume. On the other hand, fluid volume in the SG tube sheet (U-tube internal volume in the tube sheet, Table 5.3.2 (c) in Ref.1) was amended to 0.02825 m^3 per SG.

Table 2.1 summarizes the volume distribution of the LSTF primary system after the removal of the filler blocks and compares with that of the reference PWR. The values in this table were derived from the engineering drawings and do not include any "active" dead volume, such as the fluid volumes in nozzles and connected pipings (see Section 4.1). The values for the upper plenum, downcomer and pressurizer (PR) safety relief valve (SRV) lines of the LSTF were amended. Definition of the PV subvolume boundaries is shown in Fig.2.2. The total primary fluid volume of 8.007 m^3 is 9% larger than the 1/48 scaled PWR primary fluid volume.

2.2 Sealing of Leak Flow Paths

(1) Pressure Vessel Internal Leak Paths

The PWR downcomer is connected to the upper head through the spray-nozzles located at top of the downcomer. Shown in Fig.2.3 are the configuration of the LSTF spray-nozzles (nozzle geometry shown in Fig.5.2.6

of Ref.1 is incorrect) and some unexpected leak paths. The leakage was found in the spray-nozzle calibration tests (the upper head bypass flow tests in Ref.4) to exist between the upper plenum and downcomer, and between the upper head and downcomer. In order to minimize the leakage, repair was conducted twice as follows.

The first repair was performed in Nov. 1985. Thin plates were welded between the PV walls and upper core support plate or the core barrel as shown in Fig.2.4. The second repair was done in May 1986 to seal another leak paths found around the control rod guide tubes (leak path between the upper head and upper plenum) as shown in Fig.2.5. Results of the spray-nozzle calibration tests are briefly described in Section 4.3.

(2) SG Plenum Leak Paths

The SG inlet and outlet plena are separated by a partition plate (see Fig.2.1). However, small leakage was found between the inlet and outlet plena through small gaps at both side-ends of the partition plate top part as shown in Fig.2.6. The total gap area was $2.5 \times 10^{-4} \text{ m}^2$ per SG. Another possible leak path was at the top of the thin flexible seal plates which were in contact with, but not welded to, the bottom surface of the tube sheet.

The top part of the partition plate was repaired in Oct. 1987 to minimize the leakage. As shown in Fig.2.7, a ring plate, made of stainless steel with packing material in its groove, was welded to top of the partition plate. No leakage was observed immediately after this repair. However, small leakage was observed again after the integral test performed in Jan. 1988 due to deformation of the packing material. The damaged packing was replaced by a new one. Thereafter, the SG plenum leakage was checked before and after each integral test, and the packing material was renewed in several times. Consequently, the leakage was negligibly small compared with the previous condition before the repair in Oct. 1987.

2.3 Installation of Additional Auxiliary Feedwater Pump

An additional auxiliary feedwater pump was installed in March 1987 to feed each SG by a separate pump (see Fig.2.8). Before this installation, one auxiliary feedwater pump was used to feed both SGs. However, by this

means, flow partition between the two SGs was sensitive to the difference in pressure between the two SGs.

By using a dedicated pump for each SG, this problem was resolved. The new auxiliary feedwater pump (PA-B) has the same characteristics as the existing auxiliary feedwater pump (PA-A) which is shown in Table 5.3.5 in Reference 1. Thus, the total auxiliary feedwater capacity was doubled by the installation of this pump.

2.4 Break Orifice

In order to simulate the break off take phenomenon under well defined conditions, new break orifices, which can be installed flush with the leg internal surface, were made. Before this, the break orifice was mounted in a discharge piping, approximately 0.4 - 0.6 m away from the broken leg surface (depending on the break orientations).

Shown in Fig.2.9 is the configuration of the new break orifices, which are installed into the break unit as shown in Fig.2.10 (type I) and Fig.2.11 (type II). The orifices with inner diameter of 7.2, 16.0 and 22.5 mm were made for each of three break orientations to be simulated (vertically upward, downward and horizontal). These break diameters correspond to break areas of 0.5, 2.5 and 5.0% of the 1/48 scaled PWR cold leg flow area. The surfaces of these orifices have the same curvature as the internal surface of the cold leg and hot leg.

These break orifices were used for the 0.5% small break tests, SB-CL-12, SB-HL-03, SB-CL-15, SB-CL-16 and SB-CL-17.

2.5 Other Modifications

(1) Installation of Low-Range ACC Flow Meters

Low-range flow meters were additionally installed as shown below to improve accuracy of the ACC injection flow rates for smaller SBLOCA tests. Before this installation, the flow rates were measured only by the Venturi flow meters with a maximum measuring range of 90 kg/s. An orifice flow meter with a maximum measuring range of 15 kg/s was installed in July 1986 to the ACC-Cold (ACC) injection line and one with a 10 kg/s range was installed on the ACC-Hot (ACH) injection line as shown in Fig.

2.12. Configuration of these orifices is shown in Fig.2.13.

These orifices and the flow restriction orifices (Fig.2.14) caused most of the irreversible pressure drop in the ACC and ACH lines. The inner diameters of these orifices and the irreversible pressure loss coefficients for the ACC and ACH injection lines are shown in Table 2.2.

(2) Deaeration System for Primary Fluid

In order to reduce the amount of air remaining in the primary system during the experiment, a deaeration system was installed in April 1987. Before this installation, one vacuum pump, connected to top of the pressurizer (PR), had been used for this purpose. Shown in Fig.2.15 is the flow diagram of the deaeration system which consists of four vacuum pumps, ACH tank as a steam supply, valves and connecting pipings. The deaeration system was operated since Run SB-PV-02, conducted in June, 1987. The operational procedure is as follows.

- (a) The water in the ACH tank is heated up to more than 423 K (150 C) to supply steam into the primary system. The air in the ACH tank is vented by opening the vent valve, AOV-430, for several times.
- (b) The primary system is filled by water until the water half fill the cold legs. The video probes are used to monitor the water level.
- (c) Air is vented from the primary system, including the ACH injection line, by operating the four vacuum pumps shown in Fig.2.15. This vacuuming process is continued until the primary system pressure has been kept below -600 mmHg for half an hour.
- (d) Steam is injected from the ACH tank into the primary system by opening the injection valves. The steam is supplied to the SG outlet plenum so that the air remaining in the SG U-tubes is purged by the steam into the inlet plenum. Fluid temperatures in the primary system are monitored to ensure that steam fills all the U-tubes.
- (e) Mixed air and steam is vented through the pressurizer PORVs when the primary pressure recovers above the atmospheric pressure. The air purge is continued until the steam fills the primary volume above the water level.
- (f) After these steps, the primary system is filled by water to the specified pressurizer water level and heated up to establish the specified initial thermal-hydraulic conditions.

During the test preparation process for Run SB-PV-02, amount of the air remaining after the deaeration procedure was estimated by measuring the primary fluid compressibility. When the PR pressure was raised from 0.10 MPa to 0.77 MPa at a constant fluid temperature of 318 K, the PR water level decreased indicating a fluid volume contraction of 0.014 m³. The most probable regions, in which the air remained, were the top part of U-tubes and some pipings connected to the primary system. Assuming all the air remained in the U-tube top, in which pressure was 0.03 MPa higher than the PR pressure, the remaining air volume (V_1) was estimated as $V_1 = 0.017 \text{ m}^3$ by using a relation of,

$$P_1 V_1 = P_2 (V_1 - 0.014),$$

where P_1 and P_2 are 0.13 and 0.80 MPa, respectively. As this air volume, 0.022 Nm³ at the atmospheric pressure, is 0.00027 m³ and 0.016 percent of the U-tube total fluid volume at the system pressure of 8 MPa, effect of this remaining air on the LSTF test results is expected to be negligibly small.

Some procedures were lately modified to speed up the air purge process and to avoid steam hammer occurrence in the above steam injection period by using the core electric heater for heat up the primary fluid.

(3) Air Injection to Blowdown Line

In order to avoid steam hammer in the blowdown line and suppression tank, the following two modifications were performed. First, total area of the vapor sparger nozzles was reduced as shown in Fig.2.16 (nozzle number was reduced from 89×7 to 45×7). This was done to increase the vapor velocity at the nozzles in order to avoid chugging. The vapor nozzle area can be further reduced by attaching additional pipe covers on the vapor sparger pipe.

Second, an air injection line was added at the exit of blowdown line as shown in Fig.2.17. The injection of air reduces the steam condensation rate at the interface and thereby stabilize the condensation.

On the other hand, the air injection system was also operated prior to the break initiation to purge water remaining in the lower regions of the blowdown line. This water purge contributes to correctly measure the discharged break flow by the ST tank level measurement.

(4) Installation of Flow Control Valve for Turbine Bypass Flow Simulation

The LSTF steam line was too narrow to simulate the scaled PWR transient steam flow rate and there was no flow control valve. The secondary steam line was modified as shown in Fig.2.18 in Nov. 1985 to simulate this turbine bypass flow transient. The valve AOV-151 or 181 is used for SG relief valve of SG-A or SG-B, respectively. The AOV-150 and FCV-441 are used for the turbine bypass flow control in the SG-A steam line, and the AOV-180 and FCV-442 are used for the same purpose in SG-B steam line.

3. Modifications to Control and Measuring Systems

3.1 Instrumentation

Modifications made to the test instrumentation are summarized in Appendix B, "List of Instrument Installation Information". All the history of the installation and modification for each channel are recorded together with the date and the Run ID of the first experiment performed after the modification or installation.

Figures 3.1 through 3.33 show the locations of instruments. These figures supersede Figs.6.1 through 6.16 of Reference 1 and cover almost all the modifications that were made in the instrument location and the locations of newly-installed instruments. The instrumentation in the break unit is also presented in Figs.2.10 and 2.11.

Modifications and additions to the test instrumentation were made for the differential pressure and two-phase flow measurement to improve the accuracy of the data and to enhance available information from the experiments. The modifications to these measurements are summarized as follows.

(1) Differential Pressure

The locations of the pressure taps on the steam generators (SGs) were changed to measure the SG U-tube differential pressures (DPs) separately from the plenum DP measurement and to measure the DP between the SG inlet and outlet plena. The latest DP locations are shown in Figs. 3.2, 3.4, 3.18, 3.19 and 3.24. The hot leg DP measurements were changed for three times as shown in Figs. 3.30 through 3.33.

The three manifold valves on the DP measurement lines were replaced with the remote-operated valves to conduct zero calibration for all the transducers at the same time just before the test initiation.

Some of the DP transducers were replaced with the new transducers, manufactured by the KDG corporation, with the excellent stability for the zero drift in the case of the pressure change.

(2) Two-Phase Flow Instruments

Two-phase flow instruments include the gamma-densitometer with one or three gamma ray beam(s), the turbine flow meter, the drag disk velocimeter, the traverse type pitot tube velocimeter, the conductivity probe and the video probe. Except for the pitot tube velocimeter and the conductivity probe, these instruments were basically the loaned instruments from the USNRC. However, the same type of the instruments have been prepared in Japan to increase the number of measurement locations.

The gamma-densitometer or the gamma-densitometer coupled with the drag disk velocimeter and the pitot tube velocimeter have been additionally and newly installed, respectively. The orientation of the gamma-ray beam and the location for the single and three beam gamma-densitometers are shown in Fig.3.34.

The number of intact conductivity probes has been decreased because of the gradual degradation of the sensor. However, only a limited number of the degraded sensors were renewed as shown in Appendix B because of the difficulty for renewal.

A sapphire window of the video probe was broken during a test preparation procedure for SB-CL-12 test. Thus, all of the video probes were not used from SB-HL-03 to SB-CL-18 test for window renewal. The thickness of the window was increased for two video probes located at the hot legs. Two other video probes at the crossover legs have not been used after the window break accident. The reason for the window break is not well understood yet, though it was found that the outer surface of the sapphire window was covered with a number of small etch pits resulted from contact with high temperature water and steam.

3.2 Core Power Curve

The new core power curve in which the delayed neutron fission power is properly estimated was prepared to be used for small break LOCA transient tests. The power curve which had been used until SB-HL-03 test was resulted from the calculation in which the delayed neutron fission power was conservatively estimated. The power curve being different from these two power curves was also prepared only for the Semiscale counterpart tests (Runs SB-CL-06 and SB-CL-10). Thus, there are three core power curves which have been used for the LSTF tests as shown in Tables 3.1 through 3.3

and in Fig.3.35. The detail of the new power curve is presented in Reference 5.

3.3 Control System

The LSTF is primarily controlled by the CENTUM and the YEWCOM computer systems as shown in Chapter 7 of Reference 1. The initially defined control logics, however, have been changed for optimum control. The changed control logics are summarized in Figs.3.36 through 3.44.

Major logic change was performed in controlling the core power decay curve as shown in Fig.3.44. The control logic was first designed to adjust the total core power to the predetermined set value (SV) for the decay power curve by controlling the silicone controlled rectifier (SCR) using the modification value (MV) obtained from the proportional integral derivative (PID) controller comparing the measured core power (process value; PV) and the SV. However, the oscillation in the core power decay curve was observed because of undesired delay in the PV to the SV and hunting in the MV caused by some system deviation in the feedback control using the PID controller. The control logic was thus changed to directly input the MV, which was converted from the PV using the converter (K), to the SCR without the feedback control using the PID controller because the SCR has a self feedback function to equalize the MV and the PV.

4. System Characteristics

The following are experimental results on the LSTF system characteristics, which include internal volume distribution and initial mass inventory of the primary system, heat loss distribution in primary system and SGs, and bypass leak flow rate around the spray nozzles.

4.1 Internal Volume Distribution and Initial Mass Inventory for Primary and Secondary Systems

Actual fluid volume and initial mass of the LSTF primary system were experimentally determined. "Active" dead volume (see Fig.4.1) such as the ECCS line pipings was estimated from the engineering drawings. Actual fluid volume was also determined for the secondary sides of SG-A and SG-B.

(1) Volume Distribution in Pressure Vessel

The measured fluid volume distribution in the pressure vessel (PV) is shown in Table 4.1. The total PV volume was obtained as 2.763 m³ (Ref. 2). This value includes fluid volumes in all the nozzles installed on the PV wall between the elevations of EL -2.361 and EL 8.620 m. All the nozzles were closed at each nearest flange for this measurement. Fluid volumes below EL -2.150 m and between EL 6.170 and 7.369 m were evaluated from the drawings. The bracketed values shown in Table 4.1 indicate the PV volume distribution, which excludes fluid volumes in the cold leg and hot leg nozzles.

Fluid volumes in all the nozzles (below EL 8.620 m) installed on the PV wall were calculated from the drawings as shown in Table 4.2 (Ref.3). The total nozzle volume of 0.1322 m³ includes the volumes in the cold leg nozzles (0.0275 m³) and hot leg nozzles (0.0433 m³). A sum of the nominal PV volume and the "active" nozzle volume of 0.0614 m³, which excludes the cold leg and hot leg nozzle volumes, is larger than the measured PV volume of 2.692 m³ by 0.044 m³. This over-estimation of the PV fluid volume is mainly due to volume under-estimation on the small internal structures such as the numerous measuring instrumentations. Anyhow, the

measured PV volume distribution should be referred as the actual data base.

(2) "Active" Dead Volume for Primary System

The LSTF system includes many piping lines connected to pressure vessel and primary loops, such as the PV internal vent valve lines and several ECCS lines. These lines are full of water at the beginning of each LSTF test. Hot water remained in these lines can contribute to increase the primary system water mass in the transient phase.

Shown in Table 4.3 are the calculated "active" dead volumes, which are distributed in PV and the two primary loops. A volume in the auxiliary PR surge line (ref. PV nozzle No.13 in Table 4.2) was added to the previous report⁽³⁾. These are slightly changed in three LSTF tests of SB-HL-04, SB-CL-17 and SB-CL-18, in which the hot leg ECCS lines were disconnected to reduce the "active" dead volume. The total "active" dead volume in the primary system (V_a) is obtained as a sum of these values in PV and two loops.

$$V_a = 0.0614 + 0.2938 = 0.3552 \text{ (m}^3\text{)},$$

which is 4.4% of the total nominal fluid volume of 8.007 m³.

(3) Total Primary Volume and Initial Mass Inventory

The total volume and initial mass inventory for the LSTF primary system were experimentally determined as shown in Table 4.4.

Actual primary volume including the "active" dead volume was directly measured in March 1988 (Ref.3) by counting water flow rates for two water-filling processes and one drainage process in addition to the estimation of remaining water volume in the upper head as,

$$V = 8.368 \text{ m}^3 \pm 0.5\%.$$

The nominal primary volume added by the "active" dead volume of 0.355 m³ is approximately equal this measured value by chance. This measured value can be used as the actual total fluid volume in the primary system.

An initial mass inventory for the primary system was measured by two different experimental methods as shown below.

One is a result of the SB-PV-01 test⁽⁶⁾, in which the discharged pri-

mary mass was obtained as 4760 kg at the time of 1670 s after the break initiation (after the whole core dryout and before the HPI actuation), and the remaining fluid mass was estimated as 1000 kg from the differential pressure data at each water remaining region. Thus an initial mass inventory in the primary system (M_0) was obtained as,

$$M_0 = 5760 \pm 138 \text{ kg.}$$

The uncertainty is mainly due to ambiguity of the upper head remaining water mass and the accuracy of the measured discharged mass in the catch tank. The initial pressurizer water level in this test was 2.68 m (0.02 m lower than the standard PR water level). If this initial PR water level were 2.70 m, a total initial mass inventory of 5763 kg could be obtained by correcting the water mass.

Another one was the result of mass inventory test (Ref.3), in which taken account were the injected water mass in the cold water filling process, cold water mass in the "inactive" dead volumes both in PV and primary loops, drained water mass through the heat-up process, and effect of aerated gas volume in the primary system as,

$$M_0 = 5764 \text{ kg} \pm 2\%,$$

where the PR water level was 2.70 m. The uncertainty is mainly due to the measuring accuracies of the flow meters. Concludingly these two initial mass inventories agreed completely. These can be used as primary mass inventory at the standard initial test conditions.

(4) Volume Distribution in Secondary System of SG-A and SG-B

Fluid volume distribution for the secondary systems in SG-A and SG-B was measured directly at the cold condition as shown in Tables 4.5 and 4.6. These data include fluid volumes in the nozzles installed on each vessel wall and downcomer pipings. The steam and feedwater lines were isolated during the measuring time. Volume data below the level of 1.0 m was calculated as shown in Reference 2. The volume data at levels of 7.5 and 9.0 m in SG-A were corrected, volume data at 9.5 m was added, and volume data at 3.25, 9.50 and 12.00 m in SG-B were corrected. A difference of 0.037 m³ in maximum was observed between the volume data of SG-A and SG-B, especially in their upper regions. The reason of this discrepancy may be attributed to the measuring error.

4.2 Heat Loss

(1) Definition of Heat Loss for LSTF System

Pressure boundaries of the LSTF primary and secondary systems are covered by the thermal insulator made of rock wool or glass wool. As the thermal conductivity of the insulator is approximately 1/1000 of the structural metal (carbon steel), a total heat loss for the whole LSTF system is mainly controlled by thermal conduction through the insulators.

Total heat loss in a quasi-steady state of the primary and secondary systems per unit time (Q_{HL}) is defined here as a sum of heat losses per unit time for the primary and secondary fluid system (Q_F) and for the metal structures contacting with the fluid (Q_M) in addition to a heat input per unit time (Q_G) from the heater rod electric power or the operating primary pump power as,

$$Q_{HL} = Q_F + Q_M + Q_G.$$

Total heat loss per unit time through the insulators (Q_T), on the other hand, is given by Q_{HL} and a heat loss per unit time of the outer metal structures (Q_{Mo}), which are covered by the thermal insulators and contacting with the pressure boundary metal structures (see Fig.4.2) as,

$$Q_T = Q_{HL} + Q_{Mo}.$$

The heat loss for the fluid system (Q_F in W) during a test time period of Δt (s) is given as,

$$Q_F = (\sum H_{1i} - \sum H_{2i} - V_p(P_{p1} - P_{p2}) - V_s(P_{s1} - P_{s2})) / \Delta t,$$

where H , V and P are enthalpy (J), volume (m^3) and pressure (Pa) for the fluid system, respectively, and suffices i , 1, 2, p and s show each fluid region with the same thermal condition, initial test condition, final test condition, primary system and secondary system, respectively. The metal heat loss (Q_M in W) during the test period of Δt (s) is given as,

$$Q_M = \sum \rho_i V_i C_i \times (T_{1i} - T_{2i}) / \Delta t,$$

where ρ , V , C and T are density (kg/m^3), volume (m^3), specific heat (J/kg/K) and average temperature (K) for each metal component, respectively.

Data base for the metal mass and heat capacity of the pressure boundaries and internal structures are presented in Tables C.1 through C.3 in Appendix C. The outer metal structures are shown in Table C.4.

Two heat loss characteristic tests have been conducted for the LSTF

system by using a natural cool-down method. One was conducted at the beginning phase of the program (Jan. 19, 1985) and another one was at the last phase of program (June 30, 1988) with the No.1 core assembly. All the pressure boundaries for the primary and secondary systems were covered by the thermal insulators, except for the PV bottom plate with the heater rod connections for all the LSTF tests conducted during this period. The heat loss for the LSTF system, however, has been changed during the period due to degrading insulation conditions, which was mainly caused by several times of their disconnection and reconstruction during the period. Test conditions and results for these heat loss tests are shown below.

(2) First Heat Loss Test at Beginning Phase (January 1985)

The first natural cool-down heat loss test was conducted as one of the acceptance tests at the beginning of the ROSA-IV LSTF program. Both of the primary and secondary systems were filled with hot water and maintained in uniform fluid temperature distribution by operating the primary coolant pumps as shown in Table 4.7. The test was continued for 2000 s (between 46200 and 48200 s from the previous test initiation).

The average fluid temperature in the primary system was 501.45 ± 0.25 K in the initial state and 499.05 ± 0.45 K in the final state, respectively. The primary fluid was always maintained in subcooling conditions during the test period except for the steam phase above the PR water level. Total volume and mass of the primary fluid were given as 8.1 m^3 and 5767 kg, respectively. Effects of the "active" dead volumes on the heat loss estimation were neglected.

The secondary fluid conditions were almost the same in SG-A and SG-B. Total fluid volume and mass were given as 14.0 m^3 and 5776 kg, respectively. The secondary fluid temperature was represented by the steam dome saturation temperature.

Average metal temperature was assumed to be the same as that of contacting fluid temperature in each region. Heat losses in the fluid system (Q_F), metal structures (Q_M) and total system (Q_{HL}) were obtained as shown in Table 4.8. Heat input from the operating pumps was amended as 2.4 kW. Namely, $Q_F = 61.0 \text{ kW}$ (44%), $Q_M = 73.9 \text{ kW}$ (54%) and $Q_G = 2.4 \text{ kW}$ (2%). Therefore, the total heat loss was,

$$Q_{HL} = 137 \text{ kW.}$$

Heat losses for the primary system and two SGs were 49% and 51% of Q_{HL} .

respectively.

Prior to this heat loss test, two power-balancing heat loss tests were conducted at the average primary fluid temperatures of 544 K during 514 s and at 501 K during 1574 s, respectively (Ref.2). The total core electric powers were obtained as 103 kW at 544 K and 94 kW at 501 K, respectively. Discrepancy between the heat loss results of natural cool-down test and the power-balancing test at 501 K, can be ascribed to (1) non-steady temperature distribution in the metal structures and (2) large measuring uncertainty of the core electric power (± 115 kW for the total core power) for the latter.

(3) Second Heat Loss Test (June 1988)

The second natural cool-down heat loss test was conducted after the the small-break LOCA test of SB-CL-19 on June 30, 1988. All the primary and secondary systems were filled with super-heated or saturated steam except for the bottoms of PV and SGs, in which some amount of water may remained. Many metal temperatures were measured on the vessel wall, internal structures, simulated fuel-rods and U-tubes during 8000 s (between 58000 and 66000 s after the previous test initiation).

Shown in Fig.4.3(a) are time responses of representative temperatures at top, middle and bottom of the PV inner wall surfaces. Top and bottom wall temperatures decreased by approximately 30 K during the 8000 s. The middle part wall temperatures showed slower decreasing rates than those of the top and bottom wall temperatures due to radiation effects from the high temperature core region. Compared in Fig.4.3(b) are the temperature differences between inner and outer wall surfaces at top, middle and bottom parts of PV. It is shown that these temperature differences were kept almost constant during the test period. Thus, an uniform temperature distribution was assumed on all the metal structures in this second heat loss test as in the first heat loss test.

Average temperature decreasing rate of the metal structures was derived in two different methods. One was obtained as a mean value of (dT/dt) at each time step during 4000 s (between 60000 and 64000s) in the middle of test period by using automatical data processing method. Another one was obtained as $(\Delta T/\Delta t)$, where ΔT was a difference between the

metal temperatures at initial and final times, and Δt was 8000 s. There were slight differences between these two temperature decreasing rates as shown below.

Shown in Table 4.9 are the test results and metal heat loss (Q_M) derived by using the temperature decreasing rate for each component during 4000 s. The metal heat losses in the primary and SG secondary systems were 92.4 and 77.7 kW, respectively, and the total metal heat loss was 170.1 kW. On the other hand, smaller metal heat losses were obtained by using the temperature decreasing rate during 8000 s (see Appendix D) as 82.3 kW for the primary system and 73.1 kW for the SG secondary sides. And the total metal heat loss was 155.4 kW.

Heat loss in the fluid system (Q_F) was obtained as 4.3 kW (see Table 4.10). Concludingly, the total heat loss (Q_{HL}) was derived as,

$$Q_{HL} = Q_M + Q_F = 174 \text{ kW} \quad \text{during 4000 s,}$$

$$Q_{HL} = Q_M + Q_F = 160 \text{ kW} \quad \text{during 8000 s.}$$

The discrepancy between these two data is due to their different metal temperature decreasing rates, namely due to ambiguity of their temperature decreasing rates. Concludingly these data can be represented by an average value with an uncertainty as,

$$Q_{HL} = 167 \text{ kW} \pm 5\%.$$

Comparing this value with the first test result of 137 kW, it is shown that the heat loss from the LSTF system increased by 30 kW during the 3.5 years due to the damaged thermal insulators and additional installation of the measuring instruments. It should be noticed that the heat loss from the fluid system (Q_F) is variable depending on total amount of fluid mass in the system. Namely, Q_F was 44% of Q_{HL} in the first heat loss test, in which the primary system was filled with hot water except for the PR steam region and the SG secondary sides were filled with hot water approximately at the normal water level. On the other hand, Q_F was approximately 3% of Q_{HL} in the second heat loss test because the primary and secondary systems were filled with steam. The total heat loss (Q_{HL}) was, on the other hand, mainly controlled by the heat conduction through the surrounding insulators and was almost constant during each integral test. Therefore, the metal heat loss (Q_M) was also variable depending on the amount of Q_F , namely depending on the transient fluid conditions during the integral test period.

4.3 Bypass Leak Flow

As shown in Section 2.2, unexpected leakage was observed around the spray nozzles and control rod guide tubes (CRGTs). After the second repair on these leak paths, several bypass leak flow tests were conducted (Ref.4) to determine the amount of the unexpected leak flow rate around the spray nozzles, especially through two packing materials at the middle part of the nozzles (see Fig.2.3).

Shown in Fig.4.4 is a bypass leak flow test apparatus with compressed air injection into the upper head (UH) and air rejection from the upper downcomer nozzle through an air flow meter. By filling the pressure vessel with water up to 4 m above the PV bottom, the injected air could flow from UH into downcomer (DC) through the following two leak paths in addition to the spray nozzles, i.e., one is UH - CRGT - upper plenum (UP) - core barrel gap - packing material gap - DC, and another one is UH - spray nozzle gap - packing material gap - DC. On the other hand, this former leak path was closed by filling the vessel with water upto 8 m above the PV bottom. Thus, the leak flow tests were conducted at the two downcomer water levels.

Major test conditions were as follows.

Upper head pressure	25 - 1391	mmAqG,
Air flow rate	8.4 - 94.4 × 10 ⁻³	m ³ /s,
Reynolds number (Re)	2593 - 25223,	
Downcomer water level	4.0 - 8.9	m.

A total (or apparent) frictional loss coefficient (K) is defined for the total air flow rate (W), which is a sum of the spray-nozzle flow rate (W₀) and the leak flow rate (W₁) as,

$$K = 2\rho A_0^2 \Delta P / W^2,$$

$$W = W_0 + W_1,$$

where ρ , A_0 and ΔP are the air density, spray nozzle flow area ($7.26 \times 10^{-5} \text{ m}^2$) and the differential pressure between the UH and DC, respectively. By using a loss coefficient for the spray nozzle (K₀), the total flow rate compared with the nozzle flow rate is given as,

$$W/W_0 = \sqrt{K_0/K}.$$

Shown in Fig.4.5 (a) through (f) are typical results of the fourteen bypass leak tests, which were conducted between June 26, 1986 and August 8, 1988. All the leak tests are listed in Appendix E in addition to the 42

LSTF integral tests. The No.1 test (Fig.4.5(a)) shows that the measured data agreed well to the calculated value given by,

$$K_0 = 1.203 + 5.768 \times Re^{-0.25}.$$

An average value of the measured data was $K = 1.70 \pm 0.20$ at $Re = 10000$ and was slightly smaller than the calculated value of $K_0 = 1.78$. This indicates that the leak flow was negligibly small ($W/W_0 = 1.023$).

Shown in Fig.4.5(b) are results of the No.4 test, which was conducted at cold vessel and dried packing-material conditions prior to the integral test. These results are obviously different from the results shown in Fig.4.5 (c) for the No.6 test which was conducted after the integral test of SB-HL-02. Namely, the loss coefficient at 4 m DC level in the No.6 test is higher than that in the No.4 test and the loss coefficient at DC level of 8 m in the No.6 test is lower than that of the No.4 test. These tendencies are commonly observed between the two kinds of other tests. Therefore, it can be concluded that the leak path conditions through the packing-material gaps are different between the leak tests conducted prior to and after the integral test. Namely, dryness of the packing materials and dependence of thermal expansion both of the vessel wall and core barrel, might affect the leak path conditions. And it can be expected that the leak test conducted after each integral test gives a closer loss coefficient to that in the actual LSTF integral test condition.

The loss coefficients of tests No.6 through No.14 showed a consistent decreasing tendency (see Figs.4.5 (c) through (f)). An average value at $Re = 10000$ in No.14 test was $K = 0.83$ and $W/W_0 = 1.464$. Thus, the leak flow rate increased from 2.3% (No.1 test) to 46.4% (No.14 test) of the spray-nozzle flow, during the leak tests period of approximately 2 years.

4.4 Pressure Loss Distribution in Primary System

Frictional loss coefficient was experimentally determined for each region in the primary system. Shown in Table 4.11 are those across the pressure vessel, core, primary loop including SG U-tubes and the primary pump at a stalled condition. The loss coefficient is given by a form of K/A^2 , where K is a loss coefficient and A is a flow area. Corresponding differential pressure measuring locations are also shown in the table.

4.5 Steady State Characteristics

(1) Primary Loop Valve Opening Related with Pump Speed under Constant Flow Rate at 10MW Core Power

A hand control valve (HCV) is installed in each primary loop to control the primary flow rate. In order to establish a constant primary flow rate at various pump speeds, the HCV valve opening condition was determined corresponding to the pump speed.

Shown in Fig.4.6 are the valve stem positions related with the PC pump speed which was varied from 780 to 1800 rpm. The valve characteristics were the same between the two loops. As the valve stem position of 100% was far from the pipe wall top, it was necessary to move the stem position from 100 to 20%, to throttle the valve flow area corresponding to the pump speed increase from 780 to 1000 rpm.

(2) Recirculation Ratio in SG Secondary System

The SG secondary water circulates between the boiler section, principal steam separator and downcomer. The recirculation ratio (R) of the SG secondary fluid is given as,

$$R = (W_r + W_f) / W_s = W_D / W_s,$$

where W_r , W_f , W_s and W_D are a returning water flow from the separator, feedwater flow rate, steam line flow rate and downcomer water flow rate, respectively.

Shown in Fig.4.7 is the recirculation characteristics of the SG-B secondary system related with the secondary water level under a steady condition at 10 MW core power.

(3) Secondary Mass Inventory Related to Water Level

A relation of the water level and the mass inventory in SG secondary system was experimentally obtained by isolating one of the two SGs at a steady state. The main steam line, main feedwater line and the primary coolant valve in B-loop were quickly closed. The primary system was cooled down by using the SG-A. When the secondary side in SG-B became a steady state, the water level was measured and the mass inventory was determined from the volume height relation (see Table 4.6) and the fluid

density. Shown in Table 4.12 are the comparison of SG-B secondary side conditions at the steady state and the isolated state. The secondary side mass was related with the narrow and wide range level data as shown in Figs.4.8(a) and (b).

5. Thermal Properties for Heater Rod Materials

There are 1064 heater rods, 104 non-heating instrumented rods, 82 tie rods and 48 dummy rods in the No.1 simulated fuel-rod assembly of the LSTF system. Heater rods used in the assembly are made of several materials as shown in Fig.5.1. Following thermal properties for each material are based on the measured data obtained by the heater rod (or material) fabrication company as a function of temperature.

Shown in Tables 5.1 (a), (b) and (c) are density (ρ), specific heat at constant pressure (C_p) and thermal conductivity (λ), respectively, of magnesium oxide (MgO), Inconel 600, nichrome and aluminium oxide (Al_2O_3). The thermal conductivity of magnesium oxide was calculated by assuming an average density of 2800 kg/m^3 and it had larger uncertainty than the others due to the uncertainty of its actual packed condition in the heater rod. Metal mass and heat capacity of all materials used in the No.1 simulated fuel assembly are listed in Table C.3 in Appendix C.

Acknowledgment

The authors are grateful to Dr.Y.KOIZUMI of Kogakuin University, Dr. M.OSAKABE of Ibaraki University, Dr.M.KAWAJI of Tronto University in Canada and Dr.M.TANAKA in JAERI for their contribution to the design and construction of LSTF program, and are also grateful to Ms.T.KUROSAWA and Ms.M.KIKUCHI for typing the manuscripts.

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Acknowledgment

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Table 2.1 Nominal volume distribution for LSTF primary system presented in JAERI-M 84-237

Components	LSTF V(m ³)	PWR V(m ³)	$\frac{48 \times \text{LSTF}}{\text{PWR}}$
Primary Loop A (Total)	2.038	84.70* ⁴	1.155
• Hot Leg	0.124	5.96	0.999
• Cold Leg	0.116	5.55	1.003
• Cross-Over Leg	0.212	8.13	1.252
• Primary Coolant Pump (PC-A)	0.024	4.80	0.240
• SG-A Plena w/o Filler Bolcks* ¹	0.695* ²	16.72	1.996
• SG-A U-Tubes and Tube Sheet	0.867* ²	43.54	0.956
Primary Loop B (Total)	2.038	84.70* ⁴	1.155
• Hot Leg	0.124	5.96	0.999
• Cold Leg	0.116	5.55	1.003
• Cross-Over Leg	0.212	8.13	1.252
• Primary Coolant Pump (PC-B)	0.024	4.80	0.240
• SG-B Plena w/o Filler Blocks* ¹	0.695* ²	16.72	1.996
• SG-B U-Tubes and Tube Sheet	0.867* ²	43.54	0.956
Pressurizer (Total)	1.256	52.91	1.139
• Pressurizer Vessel	1.147	51.20	1.075
• Spray, Surge and SRV Lines	0.109* ²	1.71	3.060
Pressure Vessel (Total)	2.675	131.7	0.975
• Upper Head	0.510	24.6	0.995
• Upper Plenum	0.484* ²	28.4	0.818
• Core (EL 0.0 - 3.66 m)	0.408	17.5	1.119
• Lower Plenum	0.580	29.62	0.940
• Downcomer	0.693* ²	31.58	1.053
Total Volume* ³	8.007	354.0	1.086

*1 Filler blocks ($V = 0.347 \text{ m}^3$ per one SG) were removed prior to LSTF tests.

*2 Corrected from JAERI-M 84-237. PR-SRV lines include only pipings upstream side of AOV 100 or 110.

*3 Nozzles and connected pipings are not included for each component. These volumes are shown in Table 4.3.

*4 Two loops data.

Table 2.2 Irreversible loss coefficients for ACC and ACH Lines

Items	ACC - CLA		ACH - CLB	
	size and number	K ⁻¹	size and number	K ⁻¹
1. Piping Size×Length (m) Sch80	4 ^B ×19.8	3.43	4 ^B ×11.6	2.01
2. Piping Size×Length (m) Sch160	4 ^B ×3.1	0.90	4B×3.0	0.87
3. 90° Elbow Sch 80	12	2.36	11	2.16
4. 90° Elbow Sch 160	2	0.56	1	0.29
5. 45° Elbow Sch 80	2	0.26	—	—
6. 45° Elbow Sch 160	1	0.18	1	0.18
7. 4 ^B Piping Inlet at ACC Tank	1	0.50	1	0.50
8. CL Injection Part	1	0.66	1	0.66
9. Orifice Flow Meter	FE-650* ²	79	FE-680* ³	190
10. Orifice	R04-1* ⁴	24	R04-4* ⁵	499
11. Air Cylinder Valve	410-ACC	0.61	450-ACH	0.61
12. Swing Check Valve	VC-401	4.58* ⁶	VC-402	4.58* ⁶

*1 Based on the cross-sectional area of 4B Sch80 piping (97.1 mm i.d.)

*2 Sharp-edged thin plate orifice, 39.6 mm i.d. (See Fig. 2.13)

*3 Sharp-edged thin plate orifice, 32.5 mm i.d. (See Fig. 2.13)

*4 Thin plate orifice, 50.5 mm i.d. (See Fig. 2.14)

*5 Thin plate orifice, 25.9 mm i.d. (See Fig. 2.14)

*6 Valve for fully-open conditions

Table 3.1 List of JAERI core power curve

Time (s)	Power (MW)	Normalized Power (-)	Power used in Test (MW)
0	71.313	1.0	10.000
1	62.327	0.874	10.000
1.5	50.632	0.710	10.000
2	31.449	0.441	10.000
3	13.763	0.193	10.000
4	13.621	0.191	10.000
5			
6	13.050	0.183	10.000
8	12.765	0.179	10.000
10	12.337	0.173	10.000
15	11.624	0.163	10.000
20	10.911	0.153	10.000
29.12			10.000
30			
40	8.9141	0.125	8.9141
50			
60	7.3452	0.103	7.3452
80	6.1329	0.086	6.1329
100	5.2058	0.073	5.2058
150	3.6369	0.051	3.6369
200	2.8525	0.040	2.8525
300			
400	1.7828	0.025	1.7828
500			
600	1.5689	0.022	1.5689
800	1.4976	0.021	1.4976
1000	1.4263	0.020	1.4263
1500	1.2836	0.018	1.2836
2000	1.2123	0.017	1.2123
3000			
4000	0.99838	0.014	0.99838
5000			
6000	0.85575	0.012	0.85575
8000	0.78444	0.011	0.78444
1×10^4	0.78444	0.011	0.78444
2×10^4	0.59189	0.0083	0.59189
5×10^4	0.46353	0.0065	0.46353
1×10^5	0.37796	0.0053	0.37796

Table 3.2 List of new core power curve

Time (s)	Power (MW)	Normalized Power (-)	Power used in Test (MW)
0	71.313	1.0	10.000
1	70.324	0.98614	10.000
1.5	68.688	0.96320	10.000
2	65.300	0.91568	10.000
3	56.428	0.79128	10.000
4	48.645	0.68214	10.000
5	42.614	0.59757	10.000
6	37.472	0.52546	10.000
8	29.133	0.40853	10.000
10	22.820	0.32000	10.000
15	12.503	0.17533	10.000
17.87			10.000
20	8.1497	0.11428	8.1497
30	5.3662	0.075249	5.3662
40	4.5044	0.063164	4.5044
50	3.9056	0.054767	3.9056
60	3.5384	0.049619	3.5384
80	3.0425	0.042664	3.0425
100	2.7633	0.038749	2.7633
150	2.4228	0.033974	2.4228
200	2.2631	0.031735	2.2631
300	2.0795	0.029160	2.0795
400	2.0000	0.028045	2.0000
500	1.9127	0.026821	1.9127
600	1.8317	0.025685	1.8317
800	1.5768	0.022111	1.5768
1000	1.4872	0.020855	1.4872
1500	1.3417	0.018815	1.3417
2000	1.2378	0.017357	1.2378
3000	1.0960	0.015369	1.0960
4000	1.0029	0.014064	1.0029
5000	0.93648	0.013132	0.93648
6000	0.88612	0.012426	0.88612
8000	0.81362	0.011409	0.81362
1×10 ⁴	0.76272	0.010695	0.76272
2×10 ⁴	0.62943	8.8263×10 ⁻³	0.62943
5×10 ⁴	0.49122	6.8883×10 ⁻³	0.49122
1×10 ⁵	0.40466	5.6745×10 ⁻³	0.40466

Table 3.3 List of core power curve for LOFT Semiscale counterpart test of SB-CL-06

Time (s)	Power used in Test (MW)
0.0	10.000
8.0	10.000
10.0	10.000
11.0	9.488
12.0	8.144
13.0	7.120
18.0	4.576
23.0	3.568
28.0	3.088
33.0	2.848
53.0	2.640
78.0	2.336
103.0	2.208
503.0	1.568
1003.0	1.344
5003.0	.832
10003.0	.640

Table 4.1 Measured PV volume distribution including nozzle volumes

Elevation above Bottom (m)	Volume*1 (m ³)	Elevation above Bottom (m)	Volume*1 (m ³)
0.0	0.0	5.805	1.309
0.211	0.043	6.005	1.350
0.405	0.092	6.205	1.397
0.605	0.138	6.405	1.441
0.805	0.203	6.605	1.497
1.005	0.245	6.805	1.556
1.205	0.296	7.005	1.612
1.405	0.344	7.205	1.671
1.605	0.394	7.405	1.727
1.805	0.464	7.605	1.785 *2
2.005	0.512	7.805	1.854 (1.841)
2.205	0.559	8.005	1.974 (1.903)
2.405	0.602	8.205	2.032 (1.961)
2.605	0.643	8.405	2.088 (2.017)
2.805	0.684	8.531	2.122 (2.051)
3.005	0.725	8.835	2.169 (2.098)
3.205	0.768	8.987	2.208 (2.137)
3.405	0.809	9.260	2.287 (2.216)
3.605	0.852	9.564	2.375 (2.304)
3.805	0.894	9.730	2.410 (2.339)
4.005	0.936	9.742	2.413 (2.342)
4.205	0.979	9.912	2.463 (2.392)
4.405	1.020	10.076	2.513 (2.442)
4.605	1.063	10.238	2.563 (2.492)
4.805	1.103	10.390	2.613 (2.542)
5.005	1.144	10.559	2.663 (2.592)
5.205	1.185	10.716	2.713 (2.642)
5.405	1.226	10.981	2.763 (2.692)
5.605	1.268		

*1 Volumes of nozzles (0.1322 m³ in total) installed on the PV wall are included in the volume data (ref. Table 4.2).

*2 Bracketed are actual PV volume data obtained by subtracting the fluid volume of 0.0708 m³ in cold and hot leg nozzles between 7.7605 and 7.9675 m above the PV bottom.

Table 4.2 PV nozzle volume data (below EL 8.620 m)

No.	Nozzle ID No.	Elevation EL (m)	Diameter ID (m)	Volume V (m ³)	Nozzle Usage
1	N-1 a,b	5.503	0.265	0.0465*1	Hot Legs (0.207m)
2	N-2 a,b	5.503	0.207	0.0275	Cold Legs
3	N-3	6.087	0.1173*2	0.0039	ECCS Line
4	N-4	8.500	0.0669	0.0006	Safety Valve Line
5	N-5	8.145	0.0123	-	N ₂ Injection Line
6	N-6 a	8.500	0.0873	0.0010	Break Line in UH
7	N-6 b	-1.735	0.0873	0.0030	Break Line in LP
8	N-7 a,b	6.087	0.1173*2	0.0078	Internal Vent Valve Lines
9	N-7 c, d	6.627	0.0873	0.0045	Internal Vent Valve Lines
10	N-8	-1.800	0.0212	0.0001	Autoblead Line
11	N-9	8.500	0.0123	-	Rerief Valve Line
12	N-10	8.600	0.0431	-	Highpoint Vent Line
13	N-11 a,b	5.318	0.0212	0.0003	HL Bypass Simul. Lines
14	N-12	-1.735	0.1013*2	0.0034	ECCS Line (LP)
15	N-13	7.936	0.0669	0.0013	Aux. PR Surge Line
16	N-14 a,b	8.140	0.0123	0.0001	GT Pressure M. Lines
17	N-15 a-c	8.500 - 7.834	0.0123	0.0001	UH Pressure M. Lines
18	N-16 a-e	6.799 - -1.811	0.0123	0.0002	DC Pressure M. Lines
19	N-17 a-f	7.870 - 6.200	0.0123	0.0002	Thermocouple M. Lines
20	N-18 a-f	6.135 - -0.121	0.0669	0.0061	Core Pressure M. Lines
21	N-19 a-f	8.050 - 7.900	0.0431	0.0027	Miscellaneous Inst. Lines
22	N-20 a-e	6.700 - 0.300	0.0344	0.0014	Miscellaneous Inst. Lines
23	N-21 a-1	6.710 - -1.220	0.0123	0.0004	Miscellaneous Inst. Lines
24	N-22 a-d	-0.620	0.1288	0.0185	Miscellaneous (for Drag Disk)
25	N-23	-1.100	0.0123	-	Miscellaneous Inst. Lines
26	N-24 a-p	6.038 - 0.050	0.0123	0.0005	Miscellaneous Inst. Lines
27	N-26 a,b	4.270	0.0123	0.0001	Miscellaneous Inst. Lines
28	N-27 a,b	4.270	0.0669	0.0020	Miscellaneous Inst. Lines
Total				0.1322*3	

*1 Include downcomer volume of 0.0032 m³ between nozzle (0.265 m ID) and expansion sleeve (0.207 m ID).

*2 Thermal sleeve (0.0873 m I.D.) is installed.

*3 Fluid volume of 0.0708 m³ in cold leg and hot leg nozzles is include.

Table 4.3 List of "active" dead volumes for LSTF primary system

Components	Volume (m ³)	Volume (m ³) for Three Tests*2
Pressure Vessel Nozzles*1	0.0614	0.0614
Pressure Vessel Pipings (Total)	0.2093	0.2093
• Nozzles above PV Top	0.0056	0.0056
• PV-PR Vent Line	0.0571	0.0571
• Aux. PR Surge Line	0.0049	0.0049
• PV Internal Vent Valve Lines	0.0384	0.0384
• Upper Plenum ECCS Line	0.0270	0.0270
• Lower Plenum ECCS Line	0.0763	0.0763
PR Nozzles	0.0022	0.0022
Primary Loop A (Total)	0.0440	0.0278
• Hot Leg ECCS Line	0.0180	0.0018
• Cross-Over Leg ECCS Line	0.0046	0.0046
• Cold Leg ECCS Line	0.0161	0.0161
• PC-A Seal Line	0.0053	0.0053
Primary Loop B (Total)	0.0383	0.0221
• Hot Leg ECCS Line	0.0180	0.0018
• Cross-Over Leg ECCS Line	0.0008	0.0008
• Cold Leg ECCS Line	0.0142	0.0142
• PC-B Seal Line	0.0053	0.0053
Total of All Components	0.3552	0.3228

*1 Fluid volume of 0.0708 m³ in cold leg and hot leg nozzles is not included (See Table 4.2). All nozzles below PV top (EL 8.62 m) are included.

*2 Volume data are for the three tests of SB-HL-04, SB-CL-17 and SB-CL-18 without hot leg ECCS lines.

Table 4.4 Measured volume and initial mass inventory for LSTF primary system

Measured Total Fluid Volume⁽³⁾: $8.368 \text{ m}^3 \pm 0.5\%$

Measured Initial Mass Inventory

- (1) SB-PV-01 Test⁽⁶⁾: $5760 \text{ kg} \pm 138 \text{ kg}$
(PR level of 2.68 m)
- (2) Mass Inventory Test⁽³⁾: $5764 \text{ kg} \pm 2\%$
(PR level of 2.70 m)

Table 4.5 Measured volume distribution for SG-A secondary side

Level (m)	Volume (ℓ)	Level (m)	Volume (ℓ)
1.0	365	10.0	2708
1.5	504	10.5	3006
2.0	624	11.0	3301
2.5	752	11.5	3598
3.0	876	12.0	3890
3.5	1000	12.5	4181
4.0	1126	13.0	4460
4.5	1251	13.5	4751
5.0	1376	14.0	5040
5.5	1499	14.5	5341
6.0	1626	15.0	5631
6.5	1753	15.5	5924
7.0	1877	16.0	6214
7.5	2003	16.5	6496
8.0	2128	17.0	6785
8.5	2253	17.5	7003
9.0	2381		
9.5	2517		

Including downcomer pipings.

Table 4.6 Measured volume distribution for SG-B secondary side

Level (m)	Volume (ℓ)	Level (m)	Volume (ℓ)
1.00	365	9.75	2630
1.25	447	10.00	2738
1.50	499	10.25	2887
1.75	563	10.50	3043
2.00	624	10.75	3185
2.25	688	11.00	3336
2.50	748	11.25	3487
2.75	811	11.50	3635
3.00	874	11.75	3781
3.25	937	12.00	3926
3.50	1001	12.25	4069
3.75	1061	12.50	4216
4.00	1125	12.75	4352
4.25	1188	13.00	4496
4.50	1251	13.25	4640
4.75	1315	13.50	4786
5.00	1375	13.75	4928
5.25	1438	14.00	5075
5.50	1502	14.25	5225
5.75	1569	14.50	5379
6.00	1628	14.75	5523
6.25	1689	15.00	5672
6.50	1752	15.25	5818
6.75	1816	15.50	5959
7.00	1880	15.75	6101
7.25	1943	16.00	6242
7.50	2004	16.25	6384
7.75	2068	16.50	6520
8.00	2131	16.75	6667
8.25	2195	17.00	6818
8.50	2258	17.25	6961
8.75	2321	17.50	7030
9.00	2392		
9.25	2463		
9.50	2544		

Including downcomer pipings.

Table 4.7 Test results of first natural cool-down heat loss test
(Jan. 19, 1985)

Item	Unit	Initial Data (t = 46200 s)	Final Data (t = 48200 s)
Primary System			
PR Pressure	MPa	4.56	4.39
PR Water Level	m	1.954	1.883
Average Fluid Temperature	K	501.45	499.05
Water Enthalpy	kJ/kg	982.7	971.6
Saturated Steam Enthalpy	kJ/kg	2797.3	2798.4
Water Mass	kg	5767	5767
Steam Mass	kg	15	15
PCA Pump Speed	rad/s	82.4	82.4
PCB Pump Speed	rad/s	86.6	86.6
SG-A			
Steam Dome Pressure	MPa	2.62	2.49
Saturated Temperature	K	499.6	496.9
Saturated Water Enthalpy	kJ/kg	973.6	961.0
Saturated Steam Enthalpy	kJ/kg	2801.5	2800.9
Water Mass	kg	2845	2845
Steam Mass	kg	43	43
SG-B			
Steam Dome Pressure	MPa	2.60	2.51
Saturated Temperature	K	499.2	497.4
Saturated Water Enthalpy	kJ/kg	971.7	962.9
Saturated Steam Enthalpy	kJ/kg	2801.4	2801.0
Water Mass	kg	2845	2845
Steam Mass	kg	43	43

Table 4.8 Heat loss derived from first cool-down test

(a) Fluid system

Item	ΔQ (kJ)	Q_F (kW)
Primary Fluid System (Total)	6.26×10^4	31.3
• $H_1 - H_2$	6.40×10^4	
• $-V(P_1 - P_2)$, $V = 8.1 \text{ m}^3$	-0.14×10^4	
SG-A Fluid System (Total)	3.50×10^4	17.5
• $H_1 - H_2$	3.59×10^4	
• $-V(P_1 - P_2)$, $V = 7.0 \text{ m}^3$	-0.09×10^4	
SG-B Fluid System (Total)	2.44×10^4	12.2
• $H_1 - H_2$	2.50×10^4	
• $-V(P_1 - P_2)$, $V = 7.0 \text{ m}^3$	-0.06×10^4	
Total	12.20×10^4	61.0

(b) Metal structures

Item	$\rho V C_p$ (kJ/K)	$\Delta T / \Delta t$ (K/s)	Q_M (kW)
Primary System	2.768×10^4	1.20×10^{-3}	33.2
SG-A System	1.809×10^4	1.35×10^{-3}	24.4
SG-B System	1.814×10^4	0.90×10^{-3}	16.3
Total	6.391×10^4	-	73.9

(c) Total heat loss

	Q_F (kW)	Q_M (kW)	Q_G (kW)	Q_{HL} (kW)
Primary System	31.3	33.2	2.4	66.9
SG/Secondary System	29.7	40.7	-	70.4
Total	61.0	73.9	2.4	137.3

Table 4.9 Test results of second natural cool-down heat loss test
(June 30, 1988)

Components	ρVC_p (kJ/K)	dT/dt (K/s)	Q_M (kW)
Pressure Vessel (Total)	15.32x10 ³	-	51.0
• Vessel at UH/UP	4.78x10 ³	4.0x10 ⁻³	19.1
• Vessel at Core	2.94x10 ³	1.2x10 ⁻³	3.5
• Vessel at LP	4.04x10 ³	4.0x10 ⁻³	16.2
• Internals in UH/UP	1.01x10 ³	2.5x10 ⁻³	2.5
• Internals in Core/LP	2.55x10 ³	3.8x10 ⁻³	9.7
Primary Loops (Total)	7.90x10 ³	-	32.1
• Hot Legs	2.25x10 ³	4.2x10 ⁻³	9.5
• Cross Over Legs with HCVs	2.76x10 ³	3.8x10 ⁻³	10.5
• Cold Legs with PC Pumps	2.89x10 ³	4.2x10 ⁻³	12.1
Pressurizer (Total)	4.46x10 ³	-	9.3
• Vessel with Heaters	3.66x10 ³	2.0x10 ⁻³	7.3
• Piping	0.80x10 ³	2.5x10 ⁻³	2.0
Steam Generators (Total)	36.23x10 ³	-	77.7
• Vessel at Steam Dome	10.93x10 ³	1.8x10 ⁻³	19.7
• Vessel at Boiler Section	6.21x10 ³	1.5x10 ⁻³	9.3
• Vessel at Bottom/Plenum	10.74x10 ³	2.0x10 ⁻³	21.5
• Internals in Steam Dome	0.78x10 ³	2.0x10 ⁻³	1.6
• Tube Bundles with Supports	5.95x10 ³	2.8x10 ⁻³	16.7
• Downcomer Piping	1.62x10 ³	5.5x10 ⁻³	8.9
Total in Primary System	27.68x10 ³	-	92.4
Total in SG/Secondary Systems	36.23x10 ³	-	77.7
Total in Whole System	63.91x10 ³	-	170.1

Table 4.10 Estimation of Q_F for second cool-down heat loss test

Item	Unit	Initial Data (t = 58000 s)	Final Data (t = 66000 s)
Primary System			
PR Pressure	MPa	1.06	0.71
Average Steam Temperature	K	550	510
Steam Specific Enthalpy	kJ/kg	3001	2926
Saturated Water Enthalpy	kJ/kg	-	700
Steam Mass	kg	35	25
Water Mass	kg	-	10
$H_1 - H_2$	kJ	2.37x10 ⁴	
$-V(P_1 - P_2)$, V = 8.1 m ³	kJ	-0.28x10 ⁴	
Q_F in Primary System	kW	2.61	
SG Secondary Systems			
Representative SG Pressure	MPa	0.40	0.28
Average Steam Temperature	K	540	500
Steam Specific Enthalpy	kJ/kg	2999	2922
Saturated Water Enthalpy	kJ/kg	-	551
Steam Mass		23	17
Water Mass		-	6
$H_1 - H_2$	kJ	1.49x10 ⁴	
$-V(P_1 - P_2)$, V = 14.0 m ³	kJ	-0.17x10 ⁴	
Q_F in Secondary Systems	kW	1.65	
Q_F in Total System	kW	4.3	

Table 4.11 Frictional loss coefficient for primary system

Measured Region	K/A^2 (m^{-4})	ID	DP Tag Name
PV Inlet - Outlet	6.64×10^3	DP 24	DPE 140 - HLA
Core	4.43×10^3	DP 50	DPE 300 - PV
Primary Loop including SG	2.66×10^4	DP 24	DPE 140 - HLA
Stalled Primary Pump		DP 19	DPE 090 - PCA
• Forward Flow	7.44×10^4	Dp 43	DPE 230 - PCB
• Reverse Flow	11.42×10^4		

Table 4.12 Test conditions for SG mass inventory measurement

	Case I		Case II	
	Steady state	Isolated state	Steady state	Isolated state
Secondary side pressure (MPa)	7.44	~ 7.4	7.55	~ 7.4
Main steam line flow rate (Kg/s)	2.7	0	2.7	0
Main feed water flow rate (Kg/s)	2.7	0	2.7	0
Liquid level (m) (Wide range)	12.54	14.28	10.12	10.7
Liquid level (m) (Narrow range)	4.71	3.09	0.8	0

Table 5.1 List of heater rod thermal properties

		(g/cc)										
Material	Heater Rod Component	Temperature (K)										
		293	373	473	573	673	773	873	973	1073	1173	1273
Magnesium Oxide (MgO) Inconel 600 Nichrome 5 Alumina (Al ₂ O ₃)	Insulator	2.83	2.82	2.81	2.80	2.79	2.78	2.77	2.76	2.74	2.73	2.71
	Cladding	8.43	8.40	8.37	8.33	8.28	8.23	8.18	8.13	8.11	8.08	8.03
	Heater	8.41	8.39	8.35	8.31	8.27	8.23	8.19	8.14	8.10	8.02	8.00
	Core Insulator	3.80	-	-	-	3.77	-	-	-	3.73	-	-

		(kcal/kg·K)										
Material	Heater Rod Component	Temperature (K)										
		293	373	473	573	673	773	873	973	1073	1173	1273
Magnesium Oxide (MgO) Inconel 600 Alumina (Al ₂ O ₃)	Insulator	0.243	0.258	0.268	0.273	0.278	0.283	0.288	0.298	0.308	0.318	-
	Cladding	0.106*	0.111	0.116	0.120	0.125	0.131	0.136	0.142	0.148	0.154	0.159
	Core Insulator	0.181	0.211	0.225	0.245	0.255	0.265	0.270	0.275	0.279	0.284	0.289
	Heater	0.104	0.113	0.119	0.125	0.129	0.136	0.141	0.148	0.153	0.158	-

* data at 294 K.

Table 5.1 (Cont'd)

Material	Heater Rod Component	Temperature (K)											(kcal/mhK)
		293	373	473	573	673	773	873	973	1073	1173	1273	
Magnesium Oxide Inconel 600 Alumina (Al ₂ O ₃)	Insulator*1	1.5	-	1.3	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Cladding	12.8*2	13.5	14.9	16.3	17.7	19.1	20.5	22.1	23.6	25.2	26.7	26.7
	Core Insulator	31.0	24.8	-	13.7	-	9.0	-	6.5	-	5.4	-	-
Temperature (K)													
Nichrome 5	Heater	300	400	500	600	700	800	900	1000	1100	1200		
		9.7	10.1	11.9	13.3	14.8	16.2	17.6	19.1	20.5	22.0		

*1 Thermal conductivity for MgO largely depends on crammed density. Data are estimated for an average density of

$\rho = 2800 \text{ kg/m}^3$

*2 Data at 294 K.

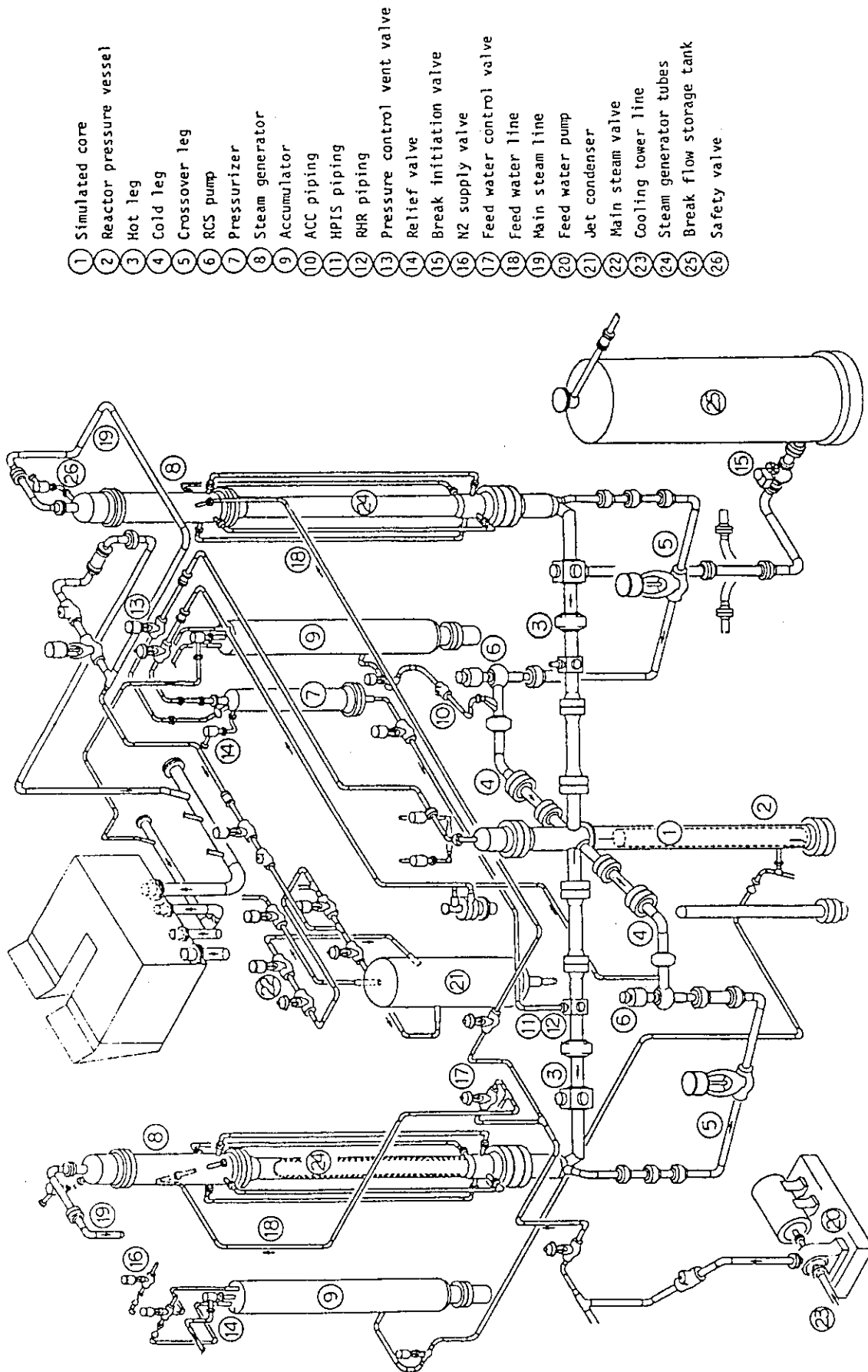
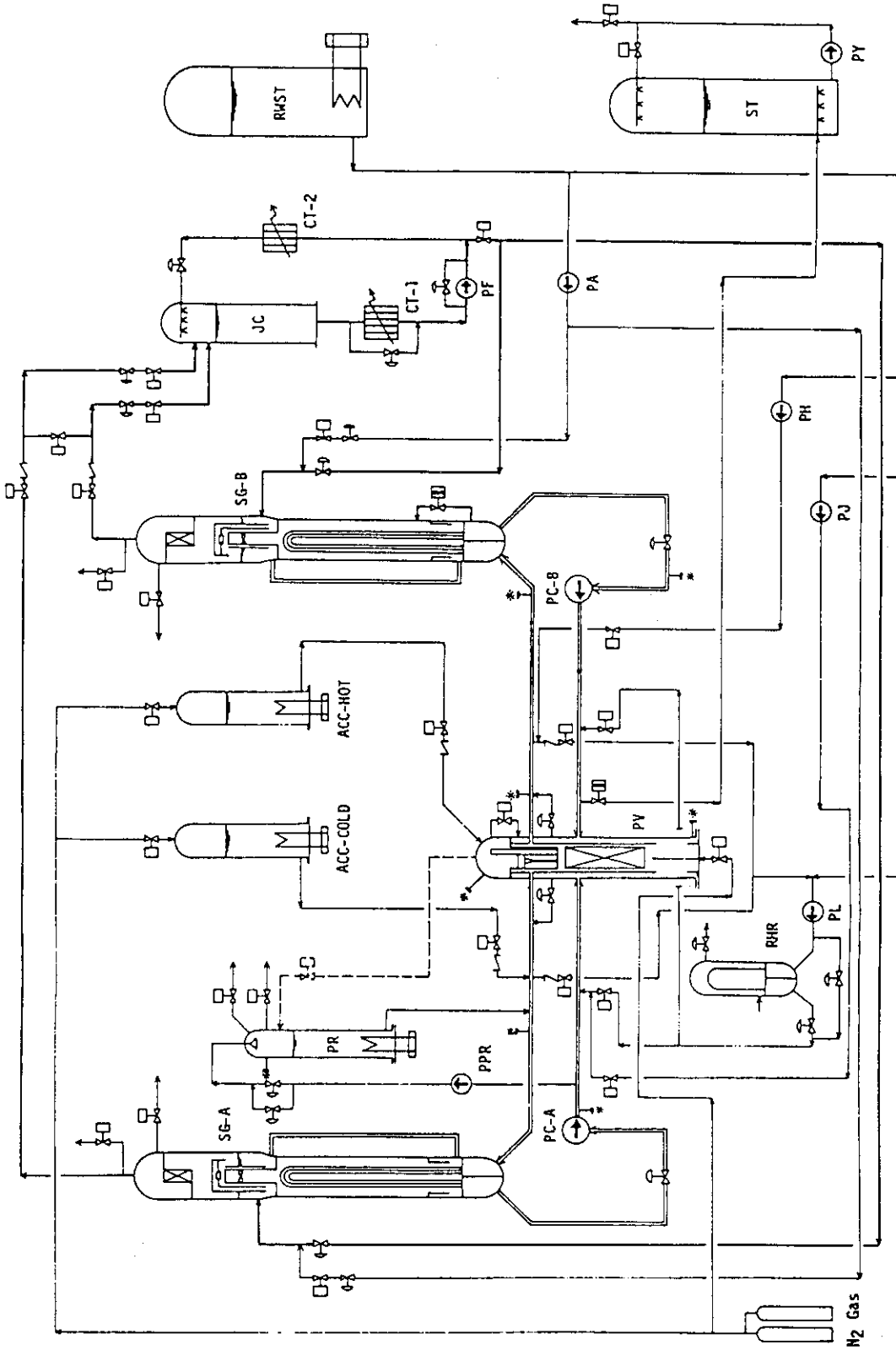


Fig. 1.1 General structure of Large Scale Test Facility (LSTF)



* Break Point

NOTE ECCS can be also connected to hot legs and upper and lower plena of pressure vessel.

Fig. 1.2 Flow diagram of LSTF system

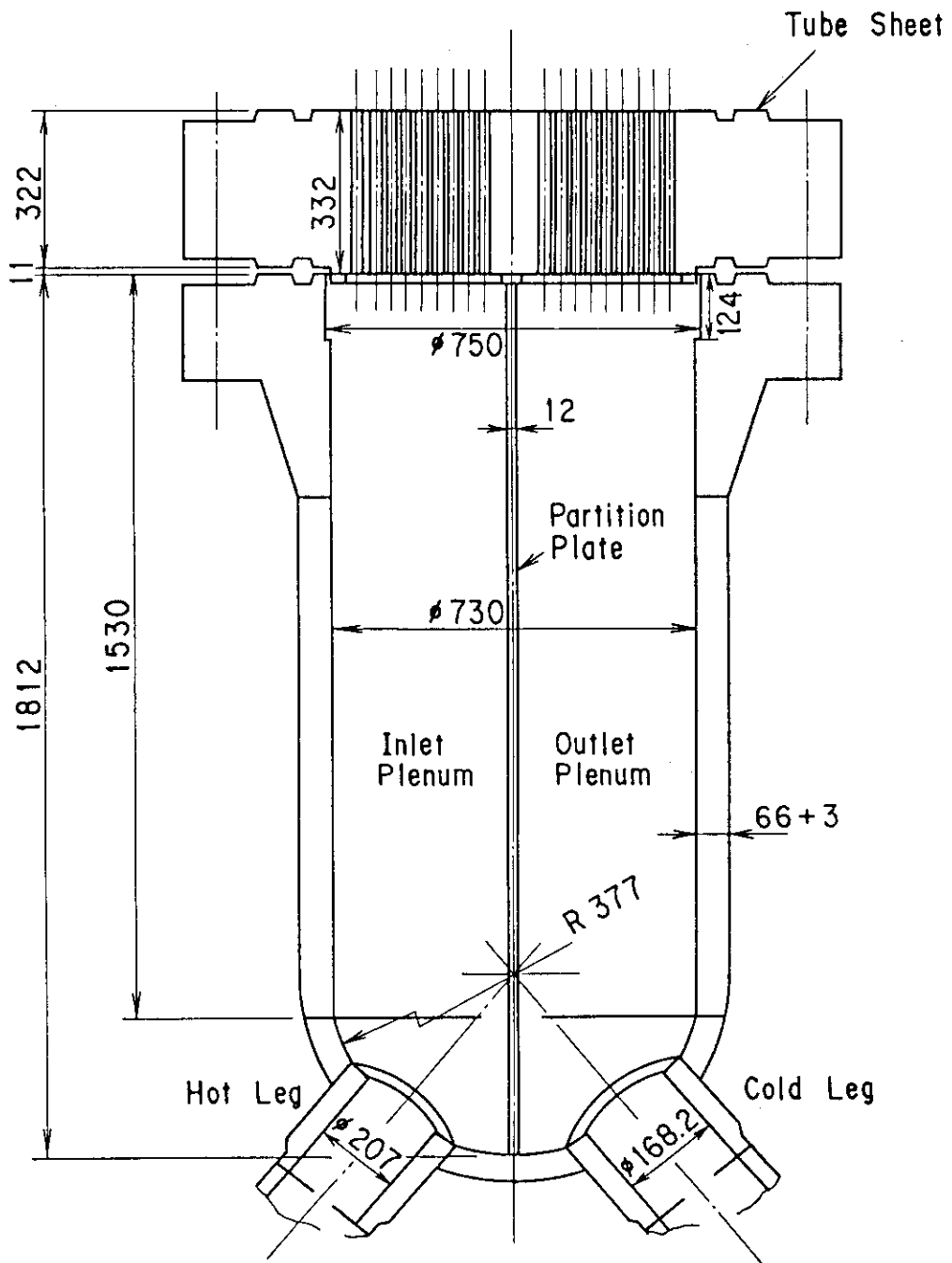


Fig. 2.1 Configuration of SG plena without filler blocks

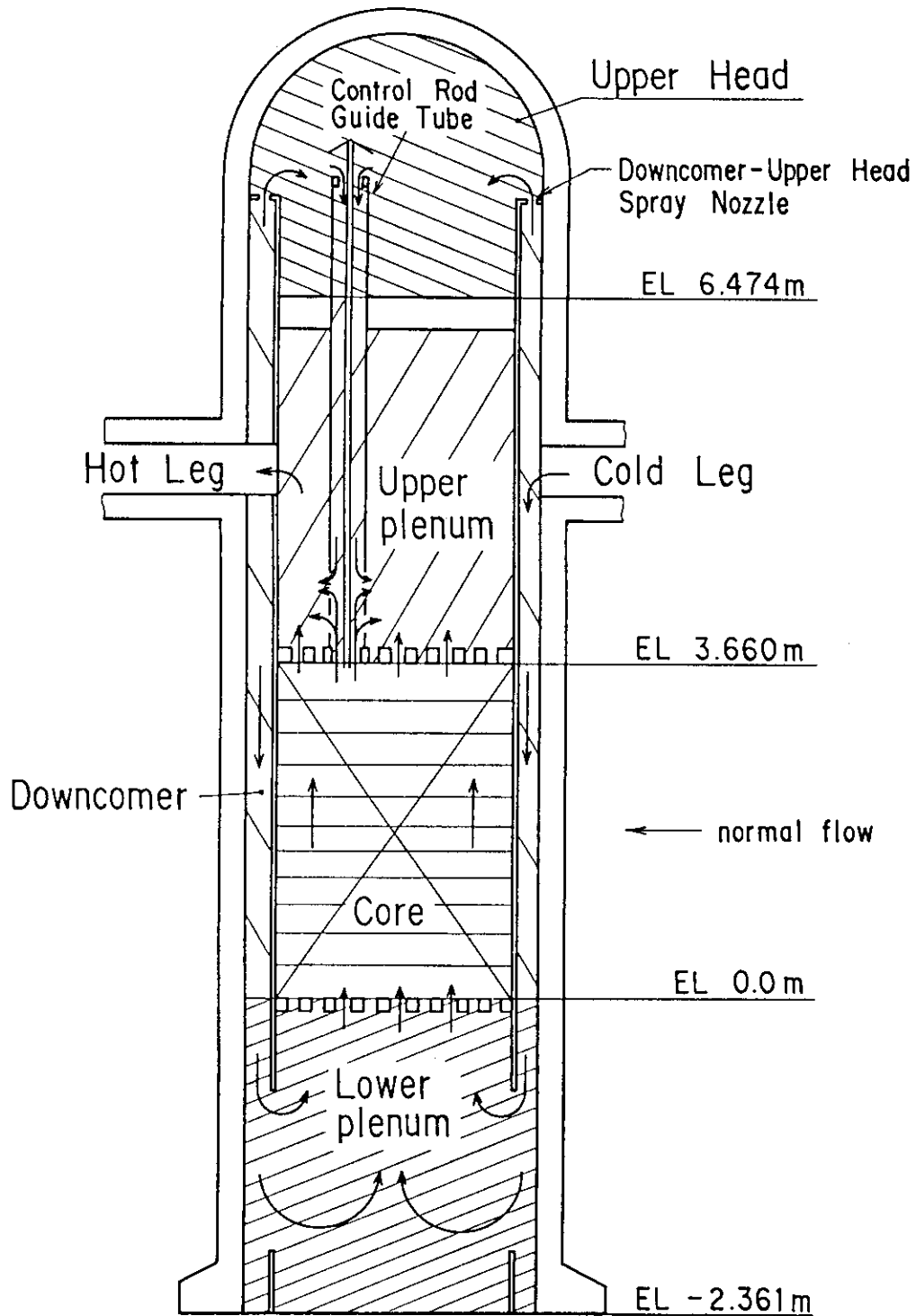


Fig. 2.2 Definition of PV internal regions referred in Table 2.1

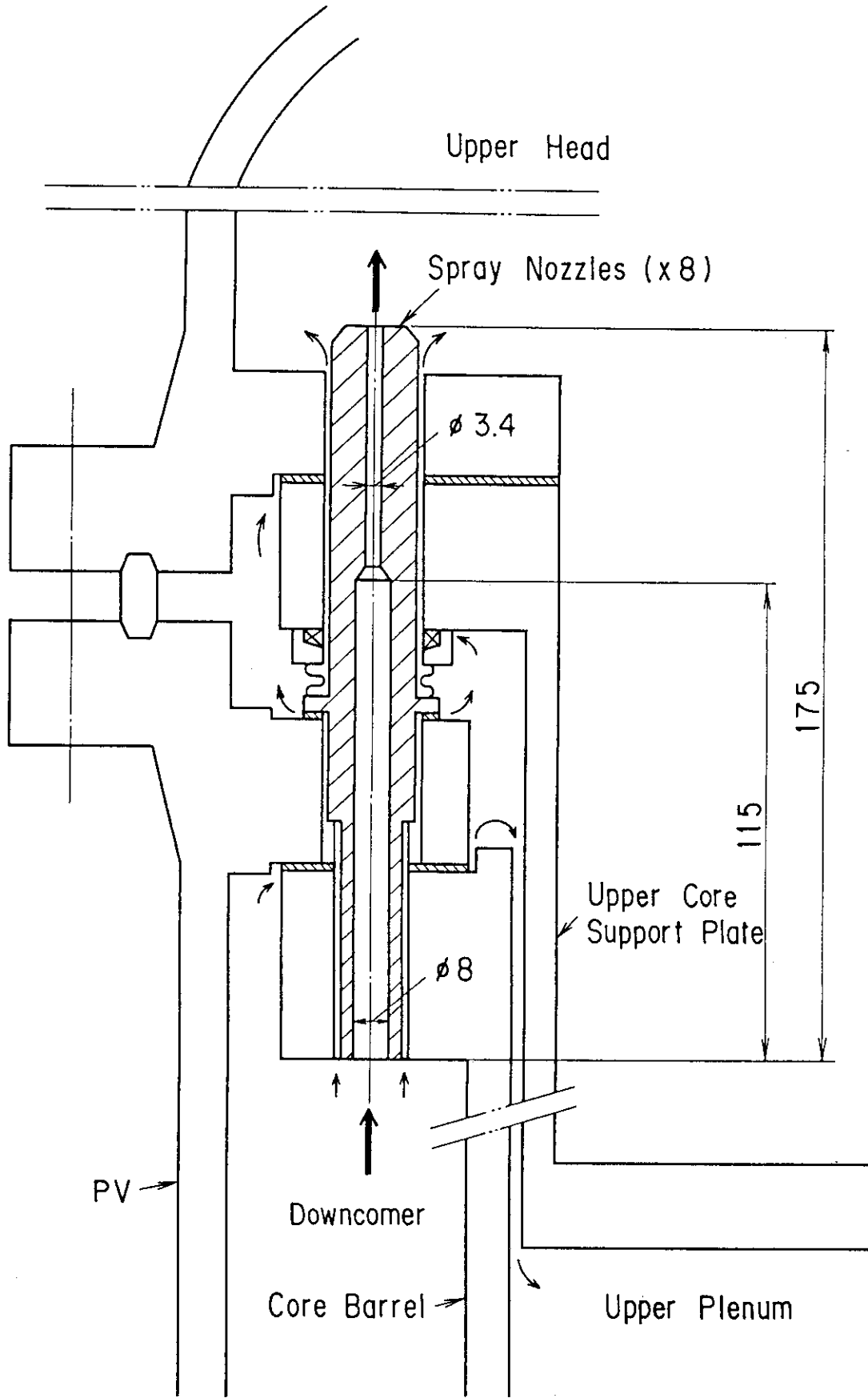


Fig. 2.3 Details of spray nozzles for LSTF system

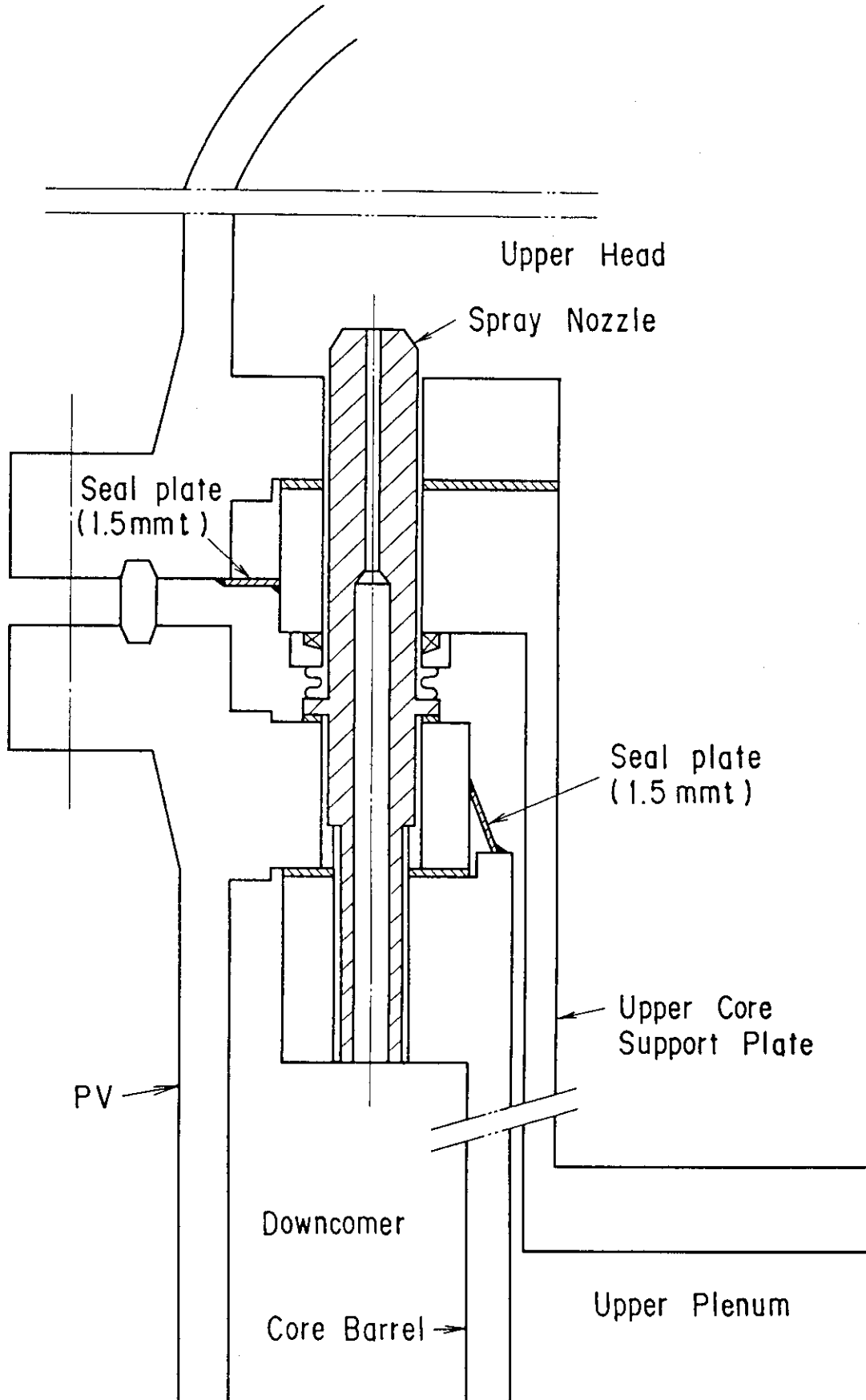


Fig. 2.4 First repairment on leak paths around spray nozzles

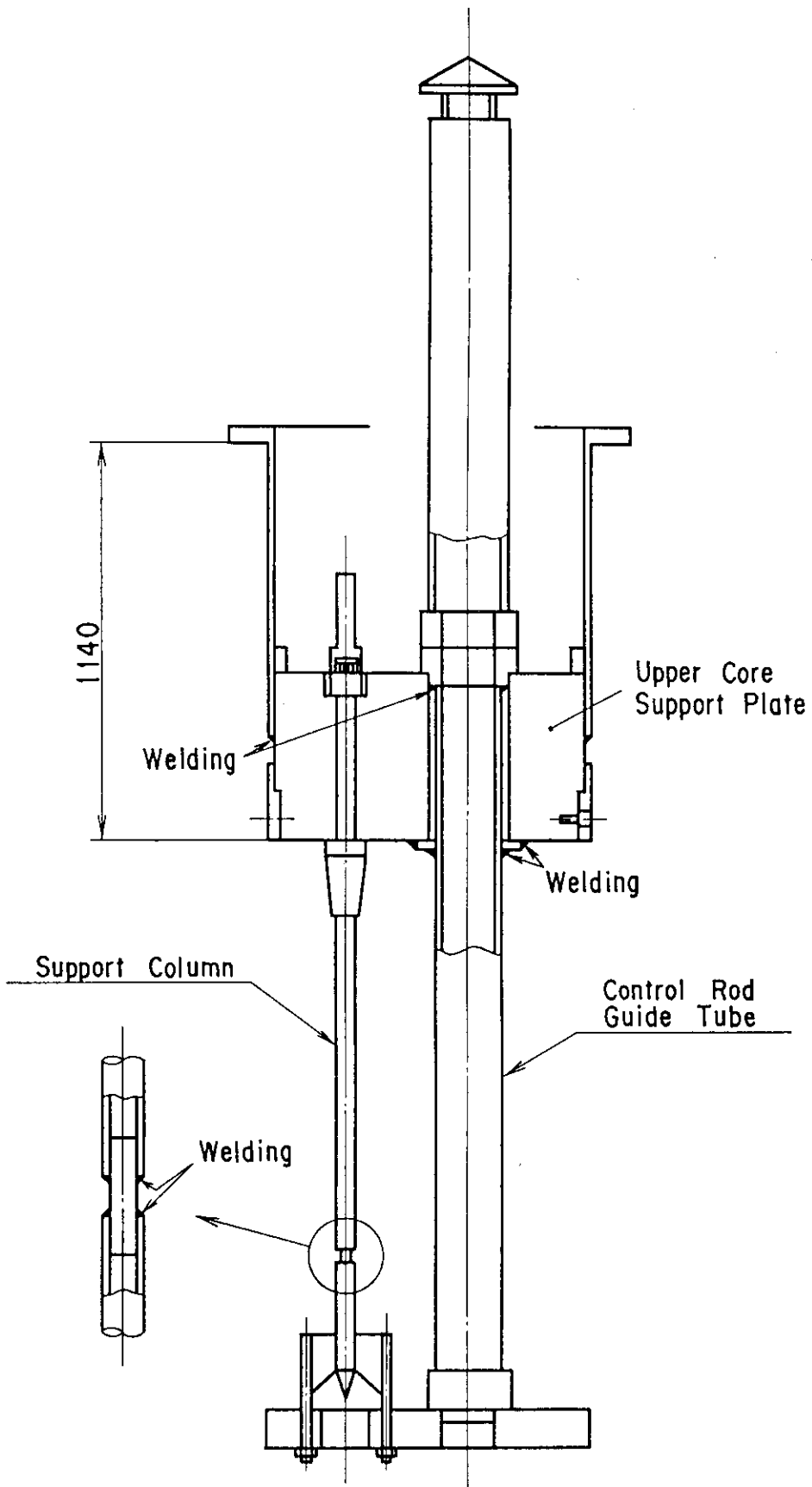


Fig. 2.5 Second repairment on leak paths around control rod guide tube

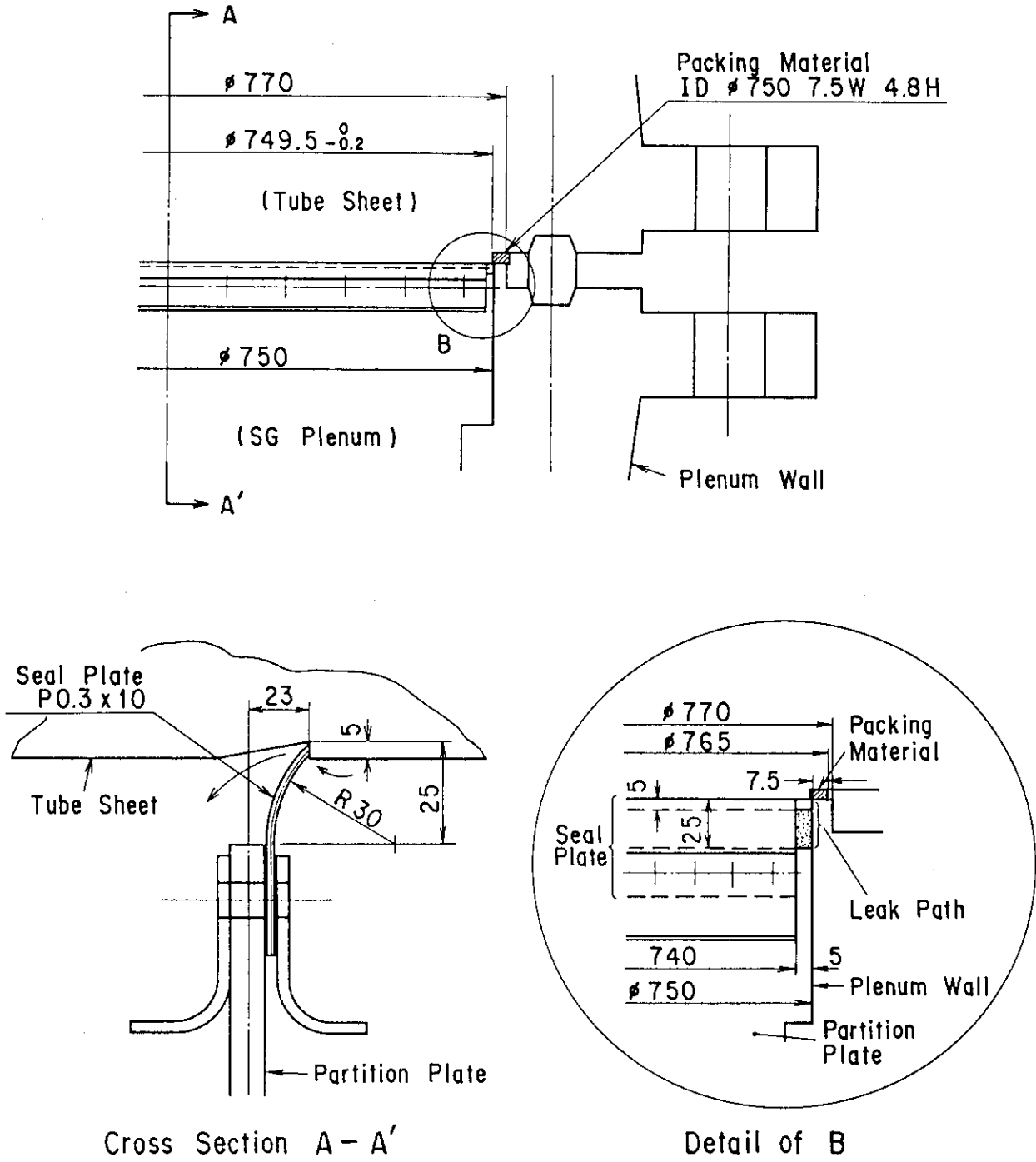


Fig. 2.6 Leak paths across SG plenum partition plate

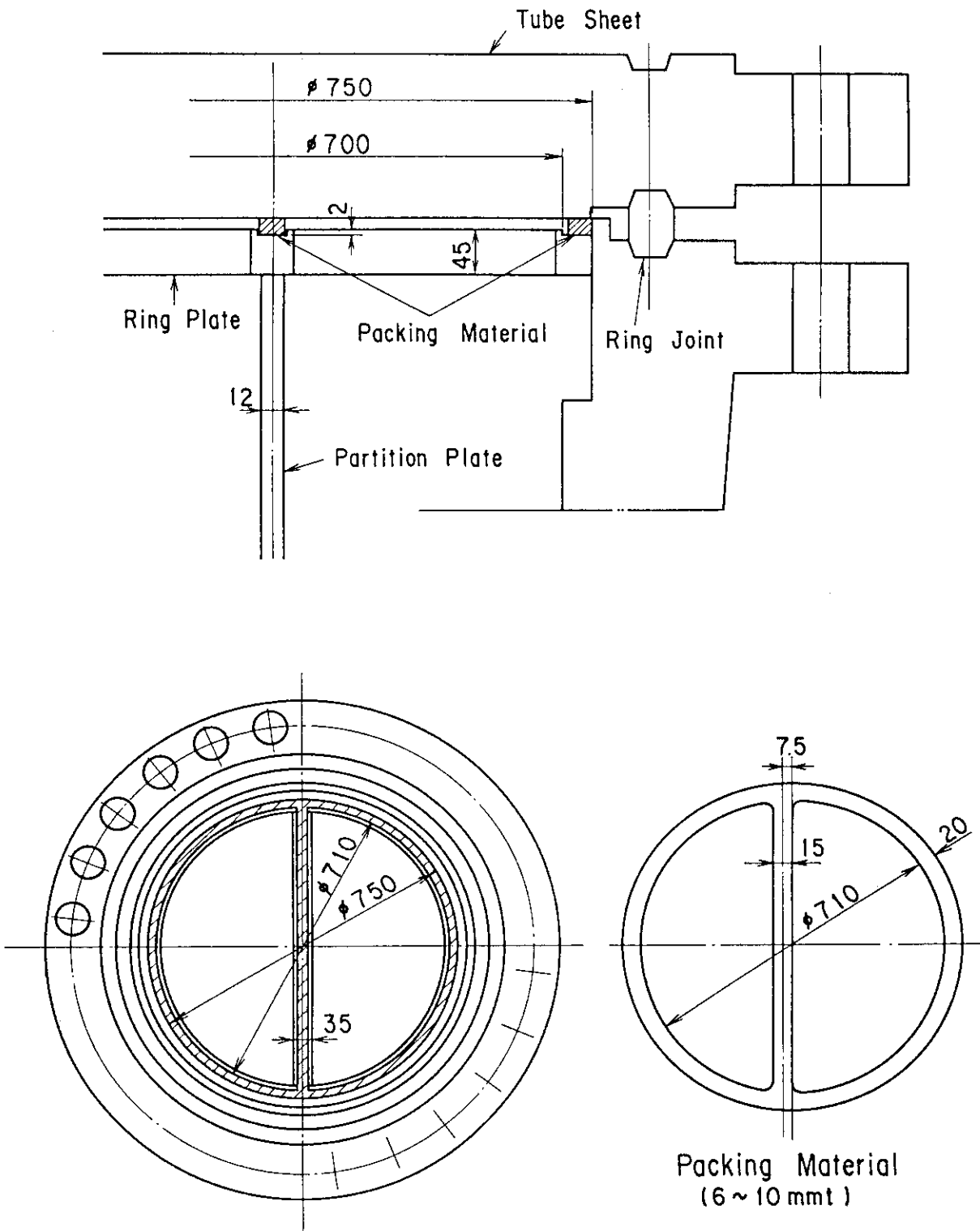


Fig. 2.7 Repairment on leak paths across SG plenum partition plate

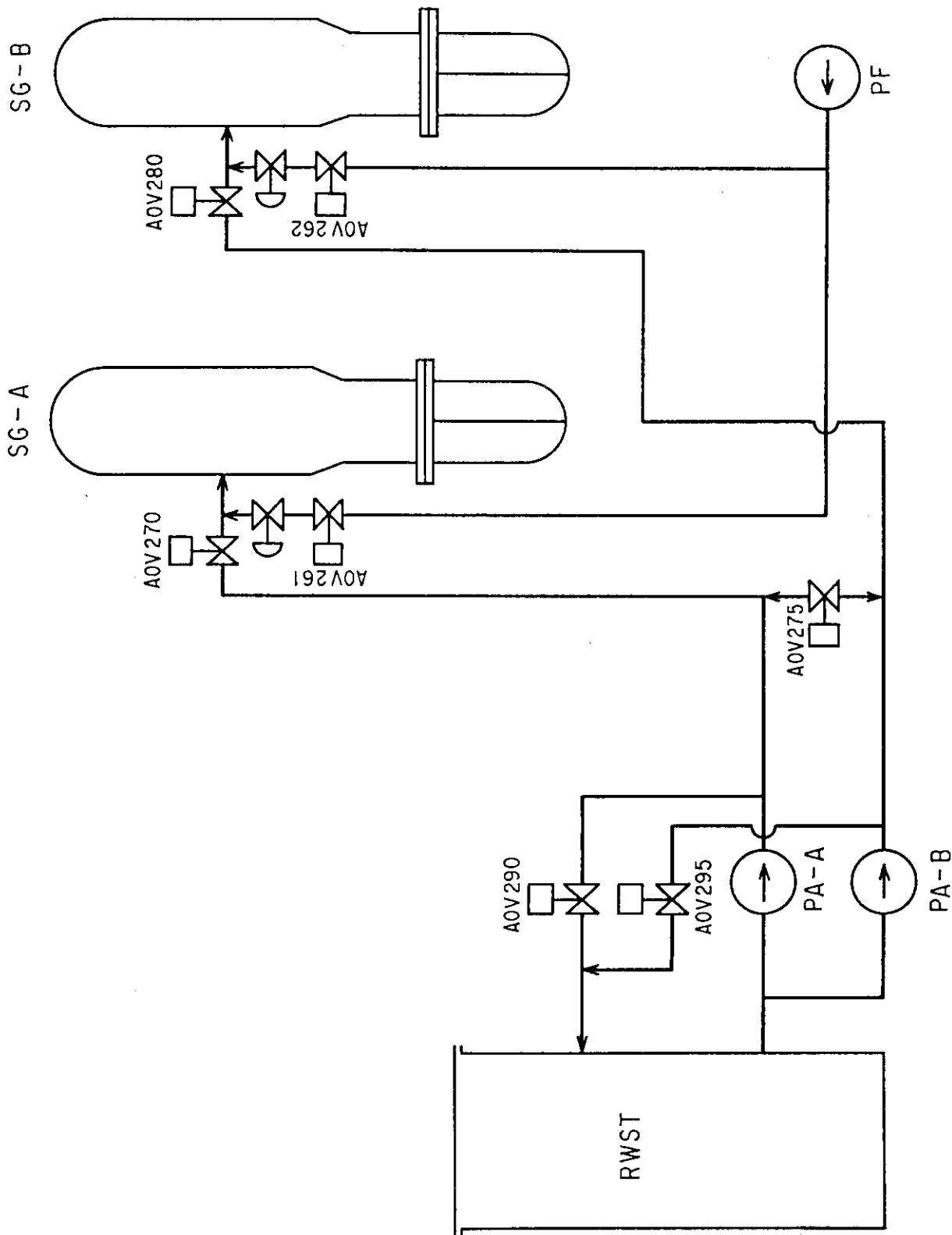
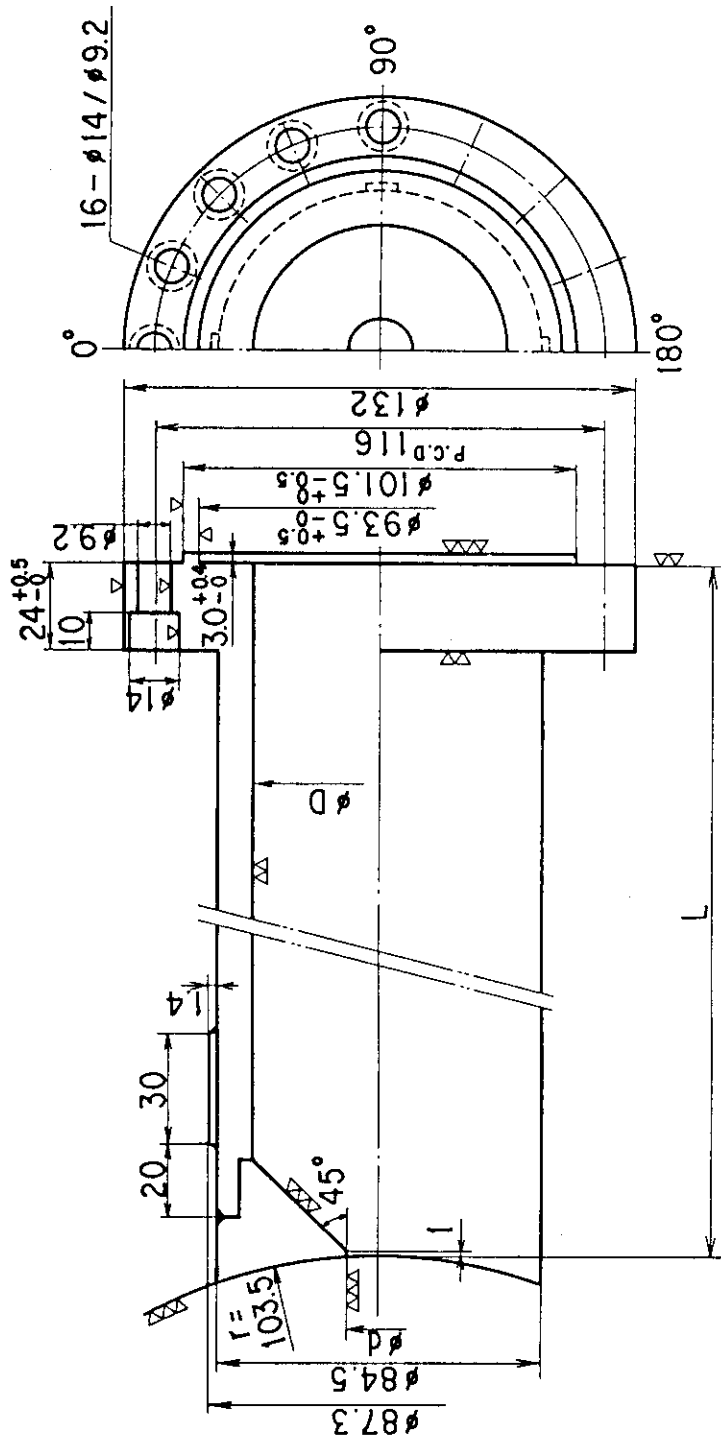


Fig. 2.8 Flow diagram of auxiliary feedwater pumps



No.	d	D	L
No. 1	7.2	60.0	338.3
No. 2	7.2	60.0	350.8
No. 3	7.2	60.0	506.8
No. 4	16.0	65.0	338.3
No. 5	16.0	65.0	350.8
No. 6	16.0	65.0	506.8
No. 7	22.5	65.0	338.3
No. 8	22.5	65.0	350.8
No. 9	22.5	65.0	506.8

Fig. 2.9 Details of flush break orifice

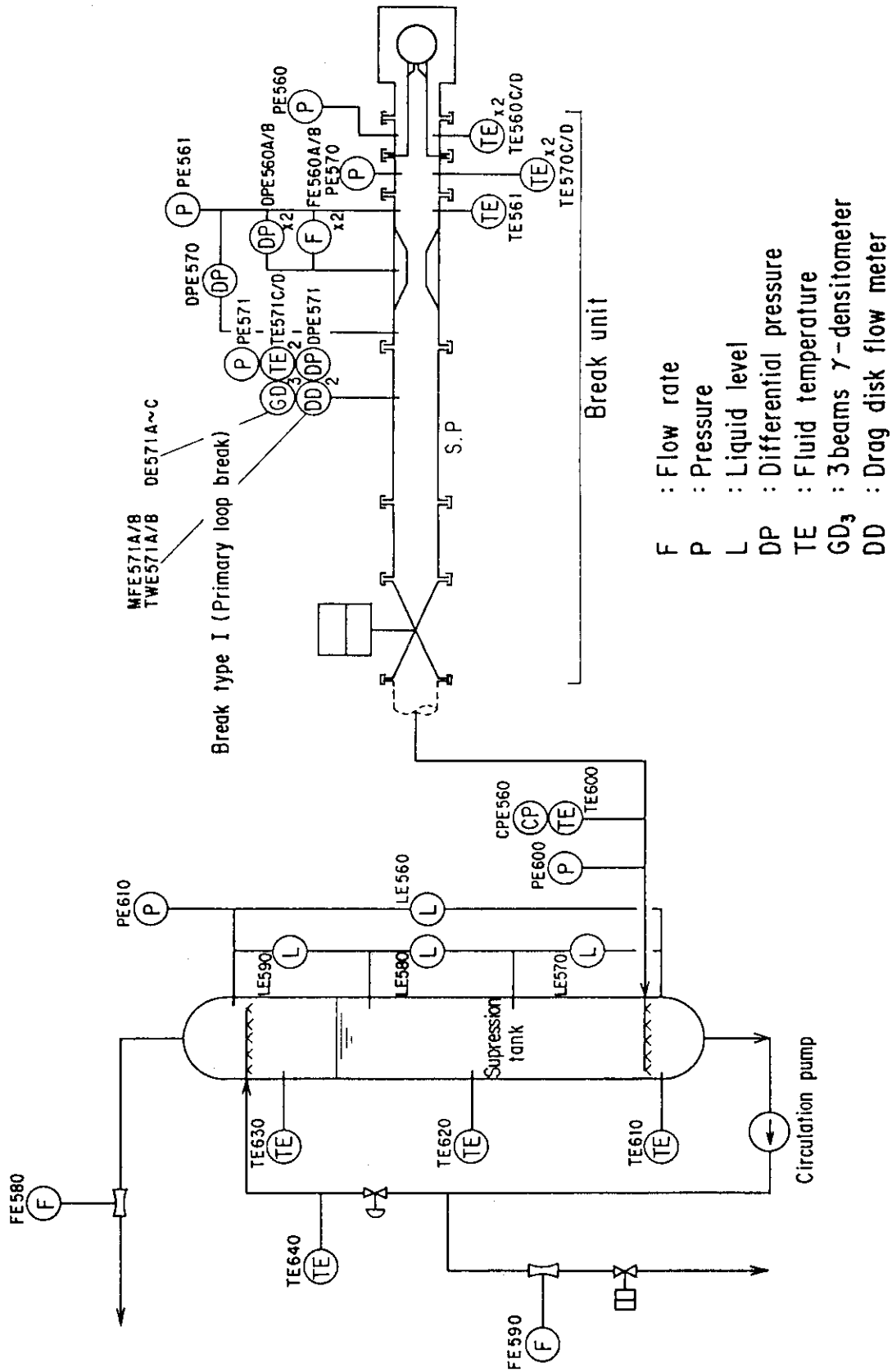


Fig. 2.10 Break unit and break line instrumentations (type I)

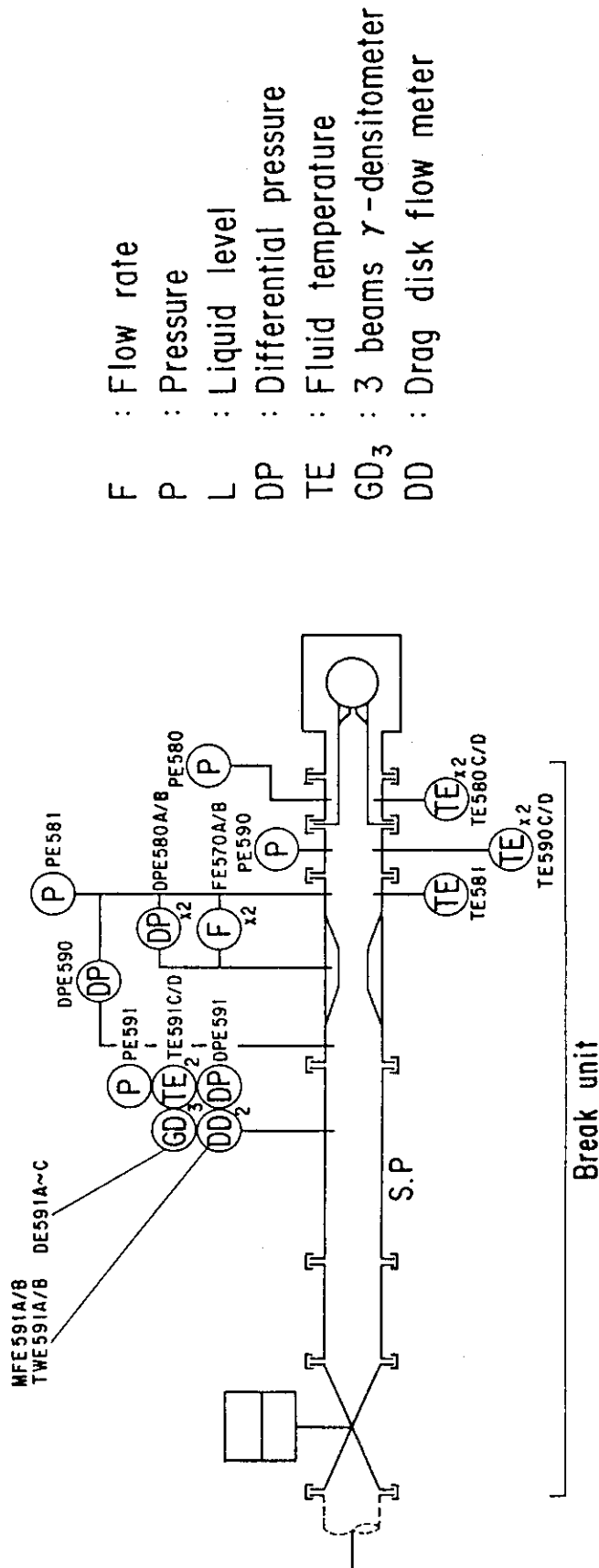


Fig. 2.11 Break unit and break line instrumentations (type II)

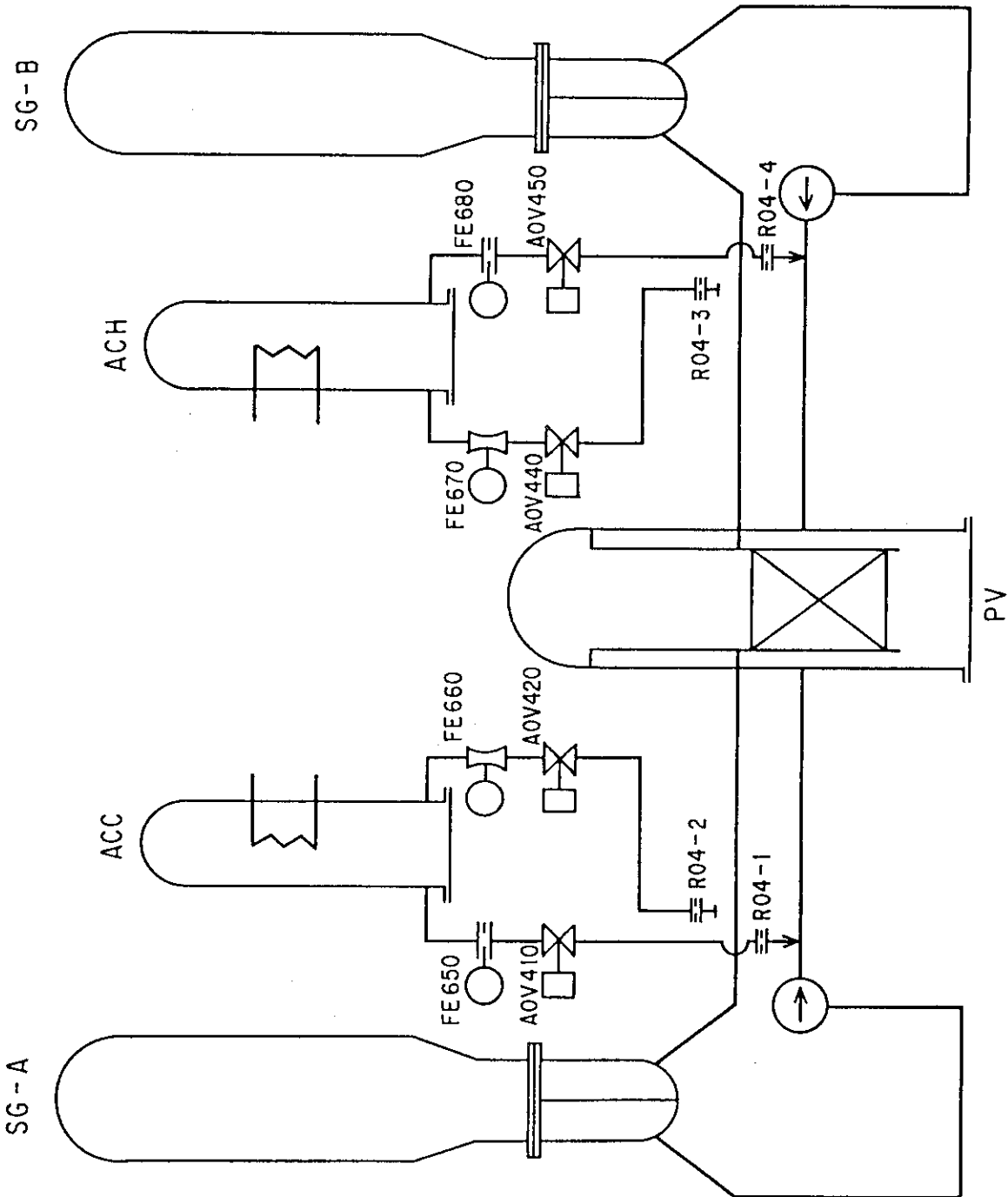
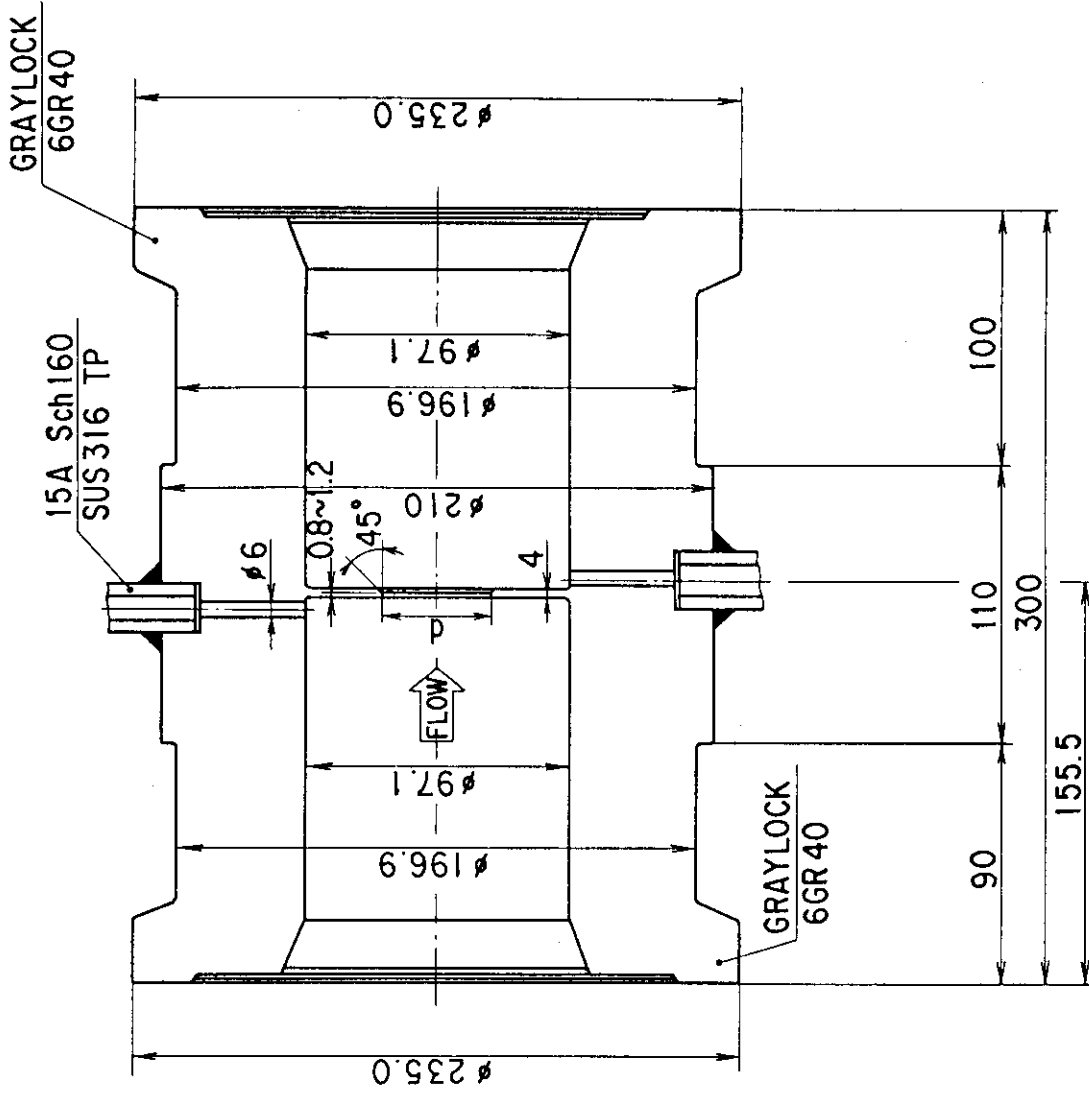
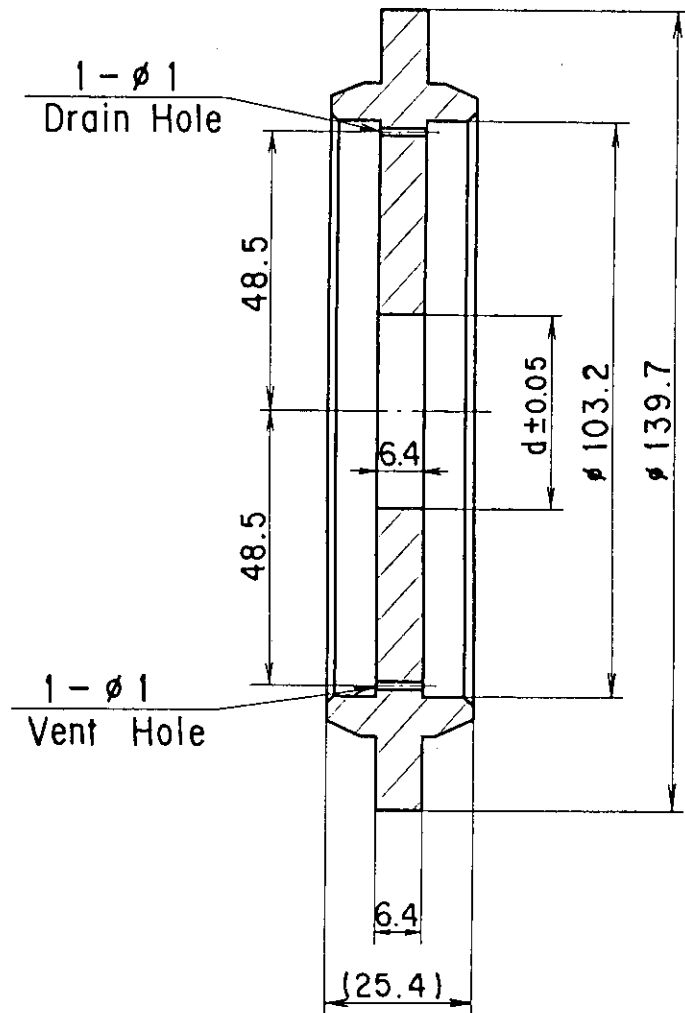


Fig. 2.12 Remodeling of ACC and ACH injection lines with low-range orifice-type flow meters



d = 39.60 mm for ACC
 d = 32.51 mm for ACH

Fig. 2.13 Configuration of flow meter orifices at ACC and ACH lines



d = 50.5 mm for ACC
 d = 25.9 mm for ACH

Fig. 2.14 Details of flow restriction orifices in ACC and ACH lines

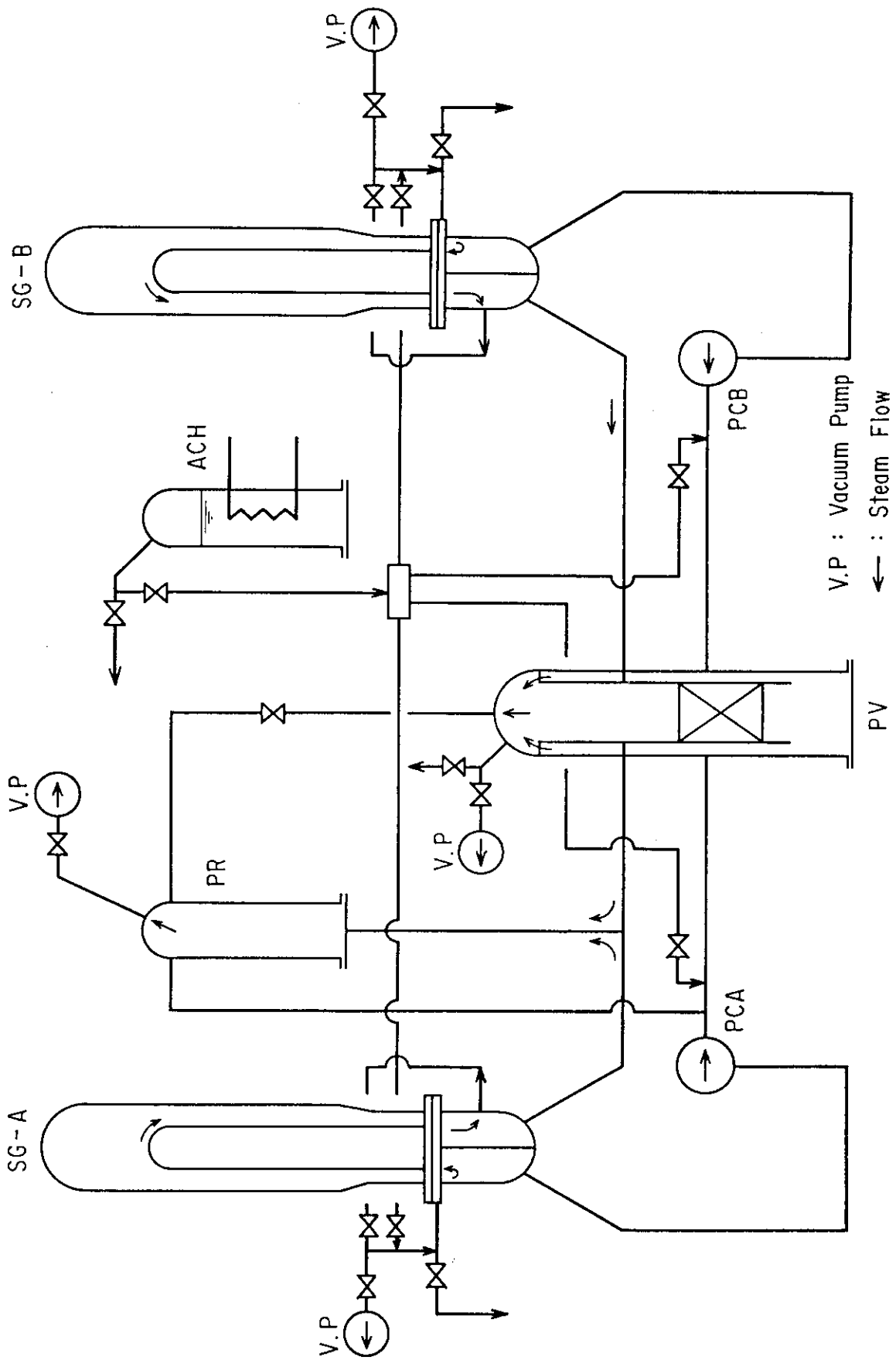


Fig. 2.15 Deaeration system in LSTF primary fluid system

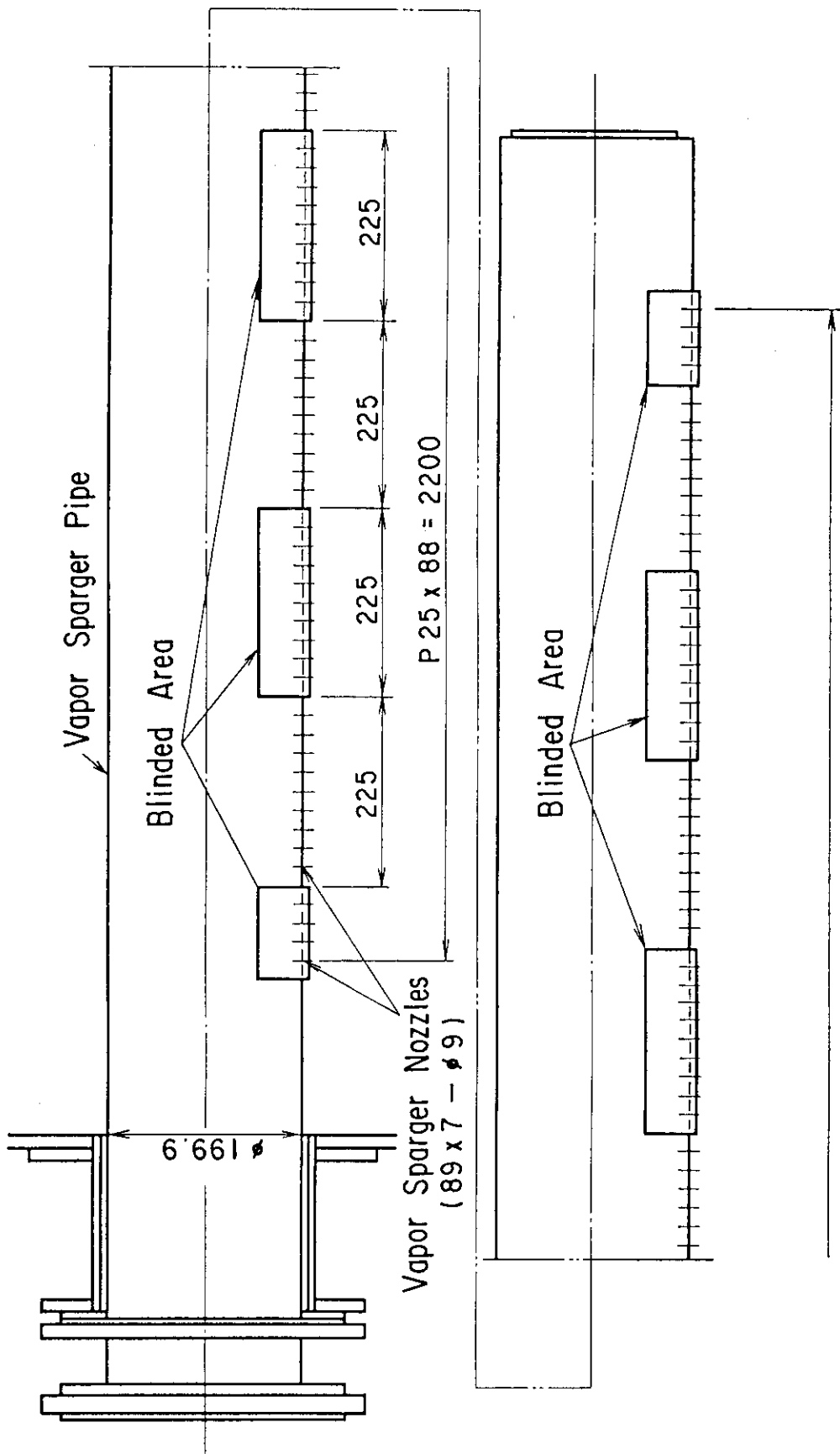


Fig. 2.16 Limitation of vapor sparger nozzles in ST tank

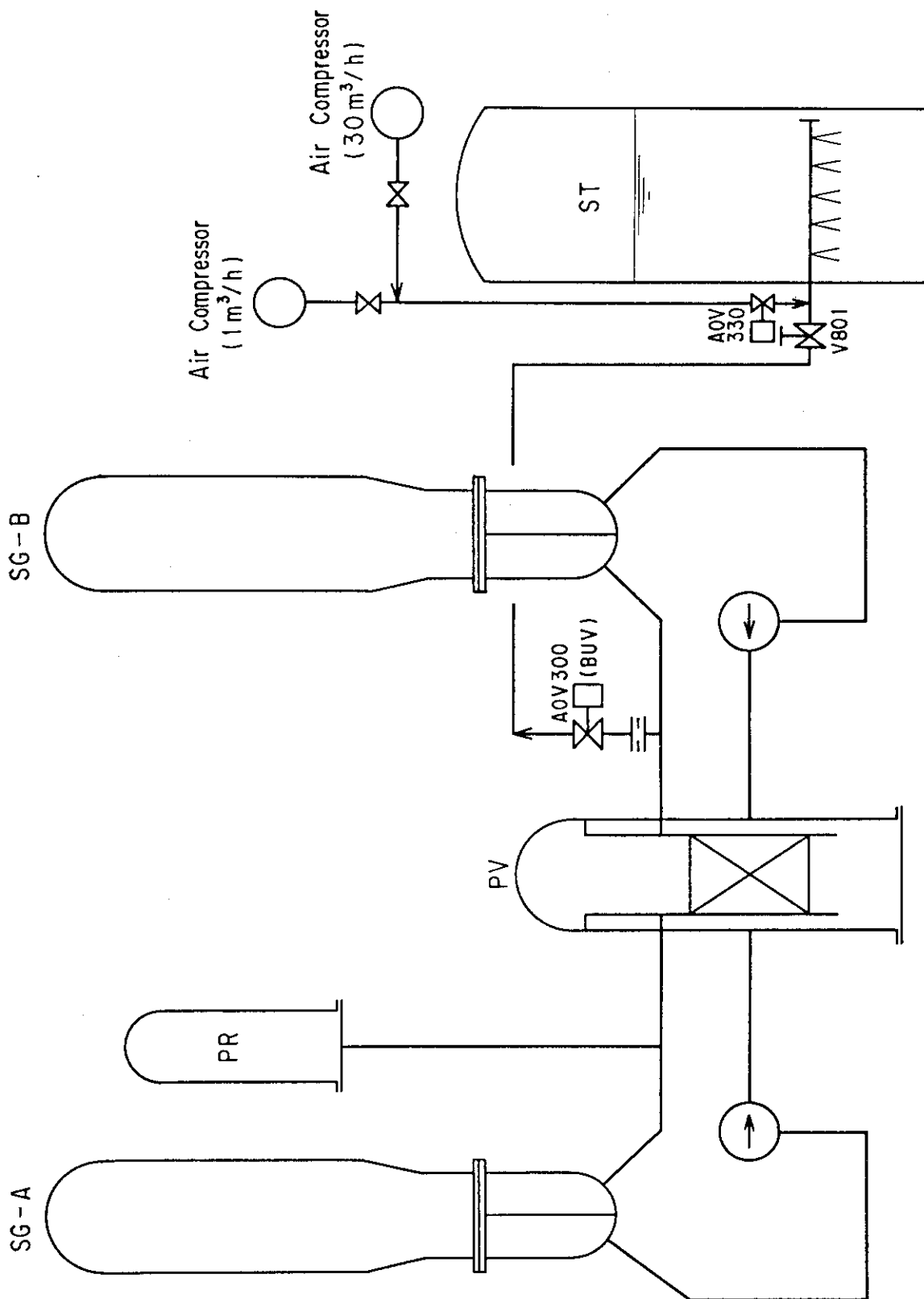


Fig. 2.17 Air injection system on discharge line

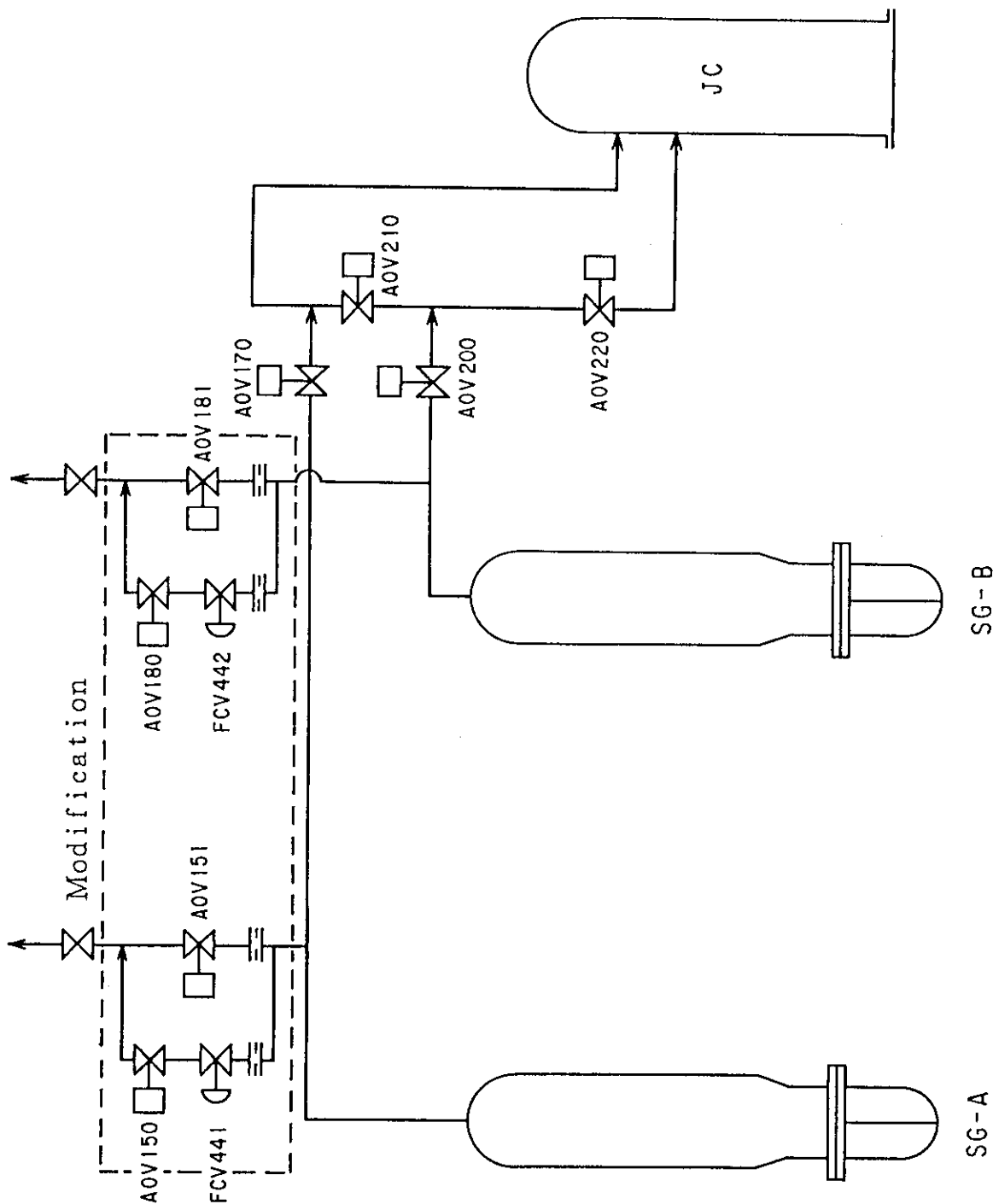


Fig. 2.18 Flow diagram for turbine bypass flow control valve

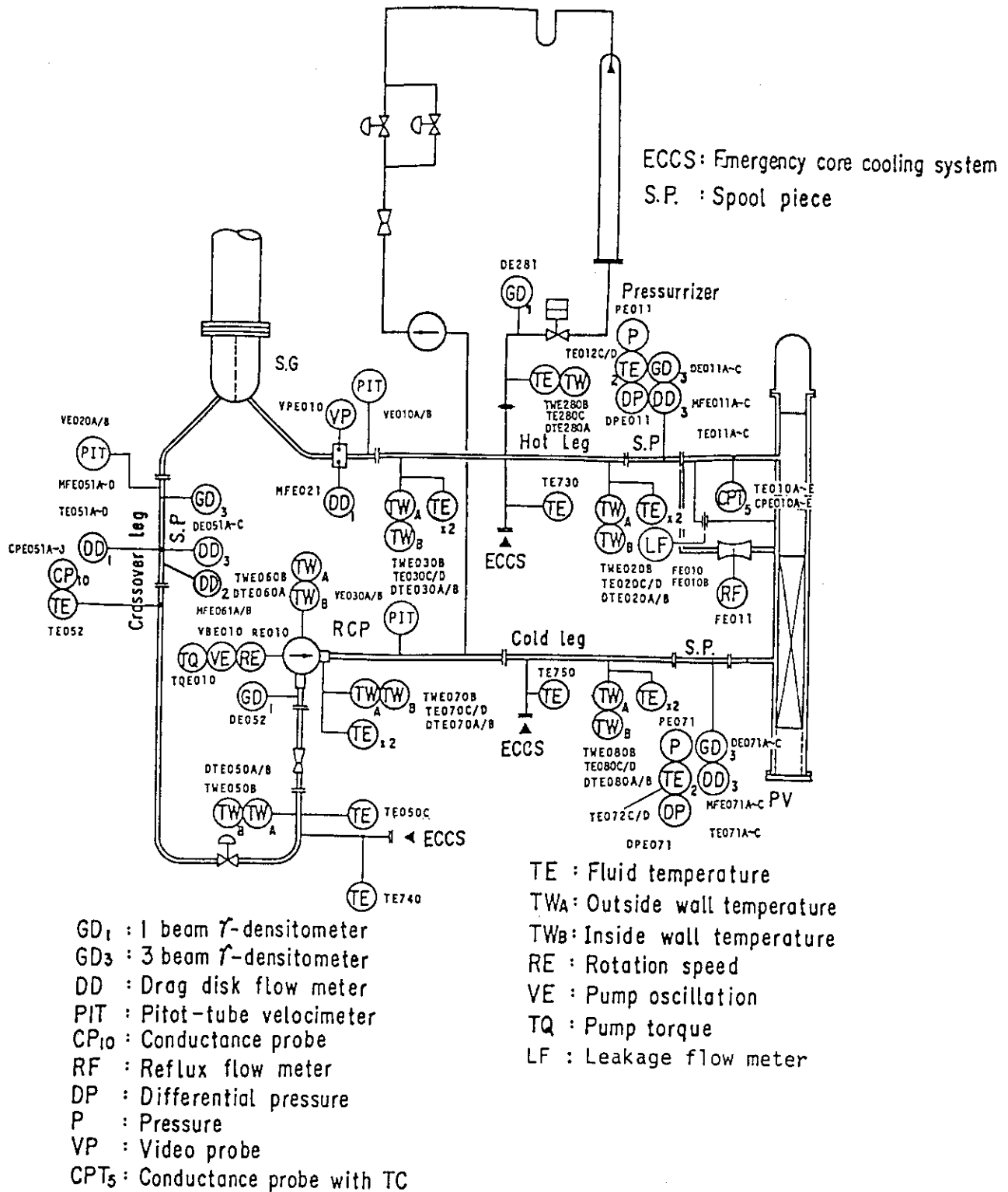


Fig. 3.1 Primary loop A instruments (I)

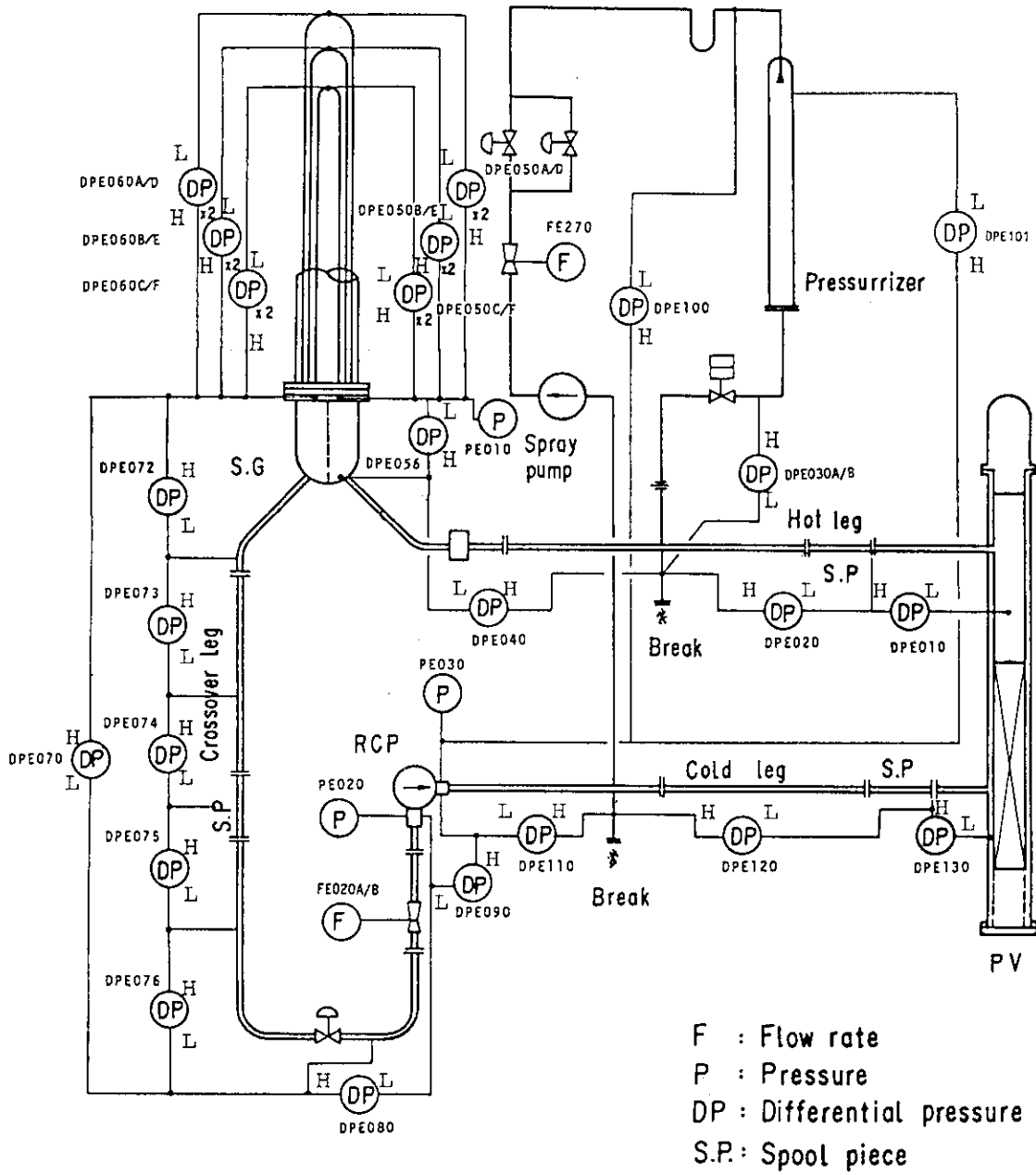


Fig. 3.2 Primary loop A instruments (II)

- VP : Video probe
- GD₃ : 3 beams γ - densitometer
- DD : Drag disk flow meter
- CP₁₀ : Conductance probe
- RF : Reflux flow meter
- DP : Differential pressure
- P : Pressure
- CPT₅ : Conductance probe with TC
- TE : Fluid temperature
- TW_A : Outside wall temperature
- TW_B : Inside wall temperature
- RE : Rotation speed
- VE : Pump oscillation
- TQ : Pump torque
- LF : Leakage flow meter

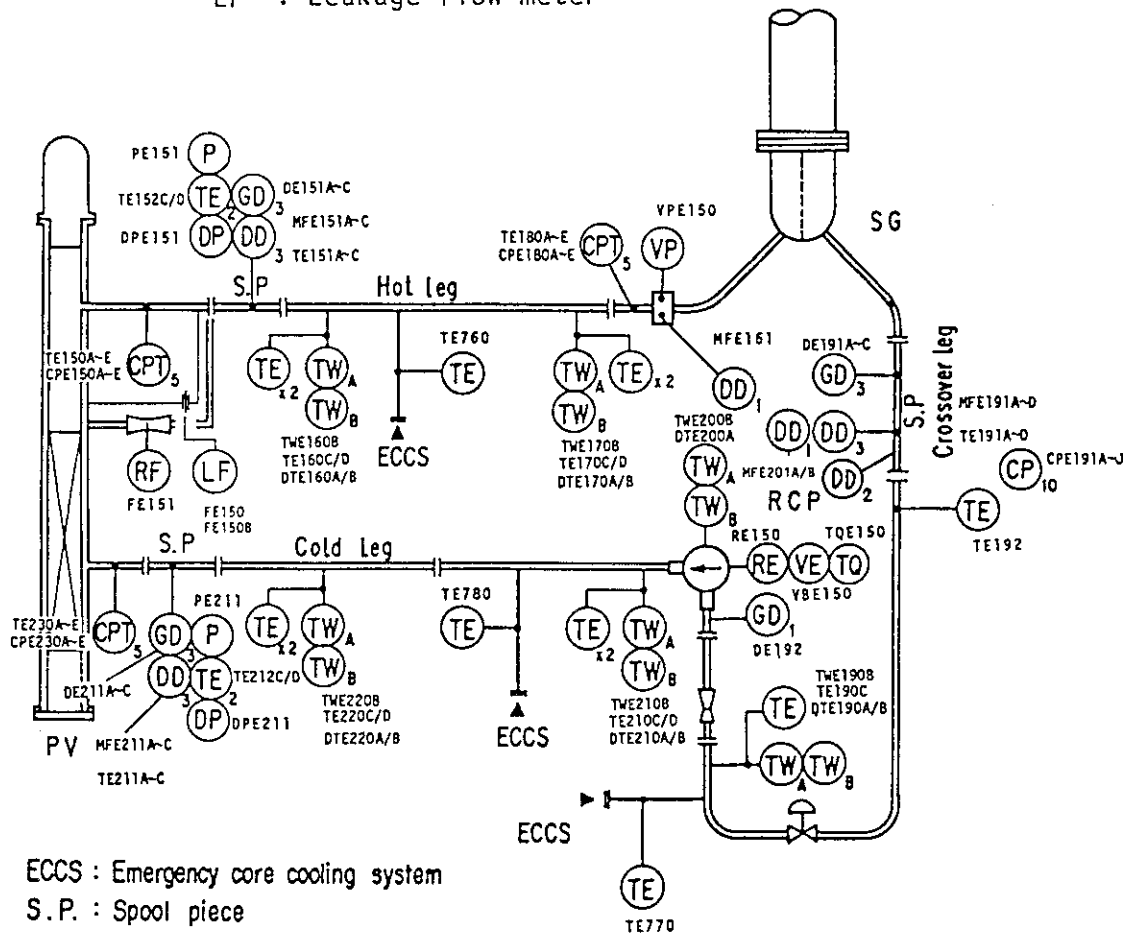


Fig. 3.3 Primary loop B instruments (I)

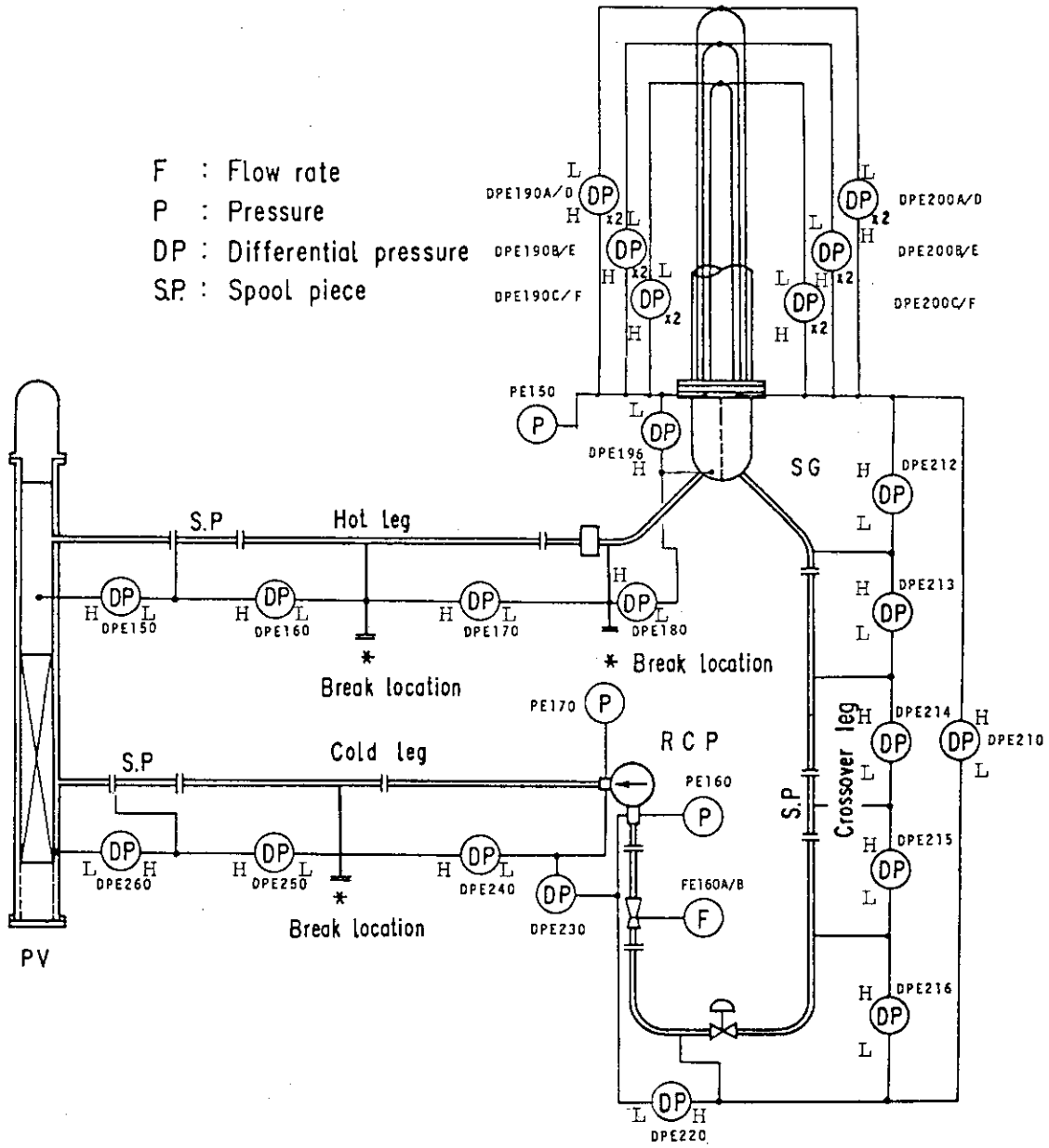


Fig. 3.4 Primary loop B instruments (II)

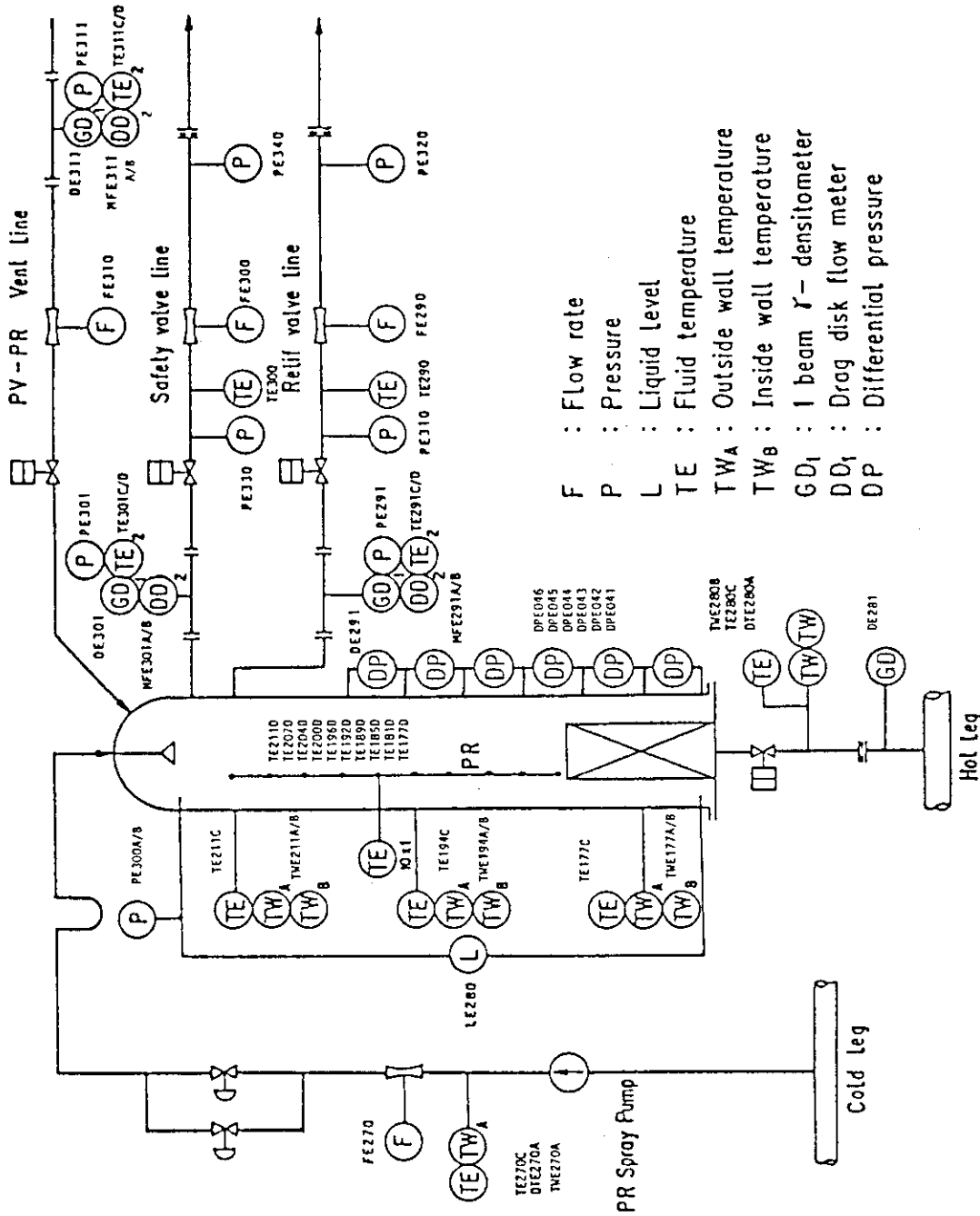


Fig. 3.5 Instruments of pressurizer and associated lines

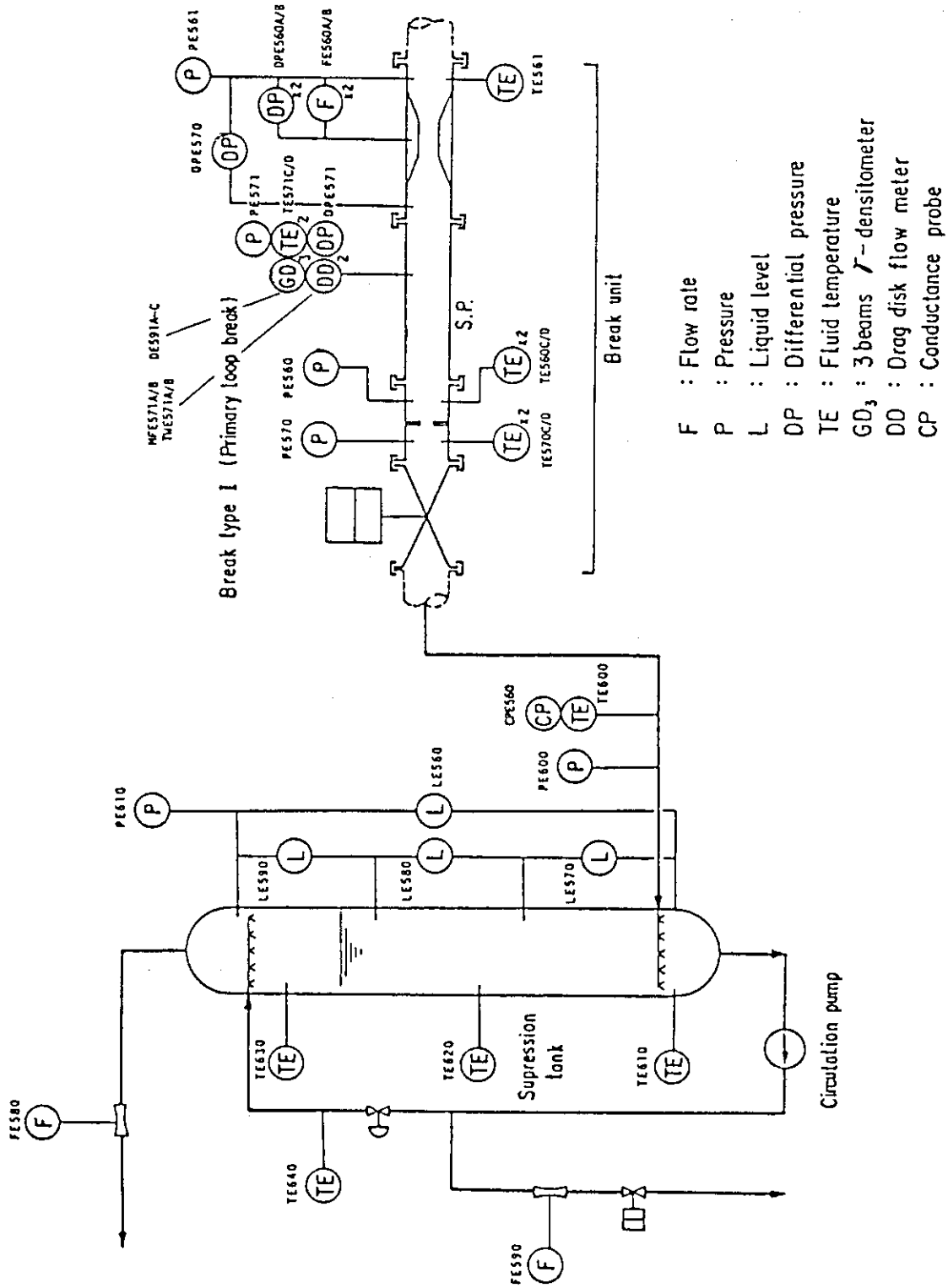


Fig. 3.6 Suppression tank and break unit type II instruments

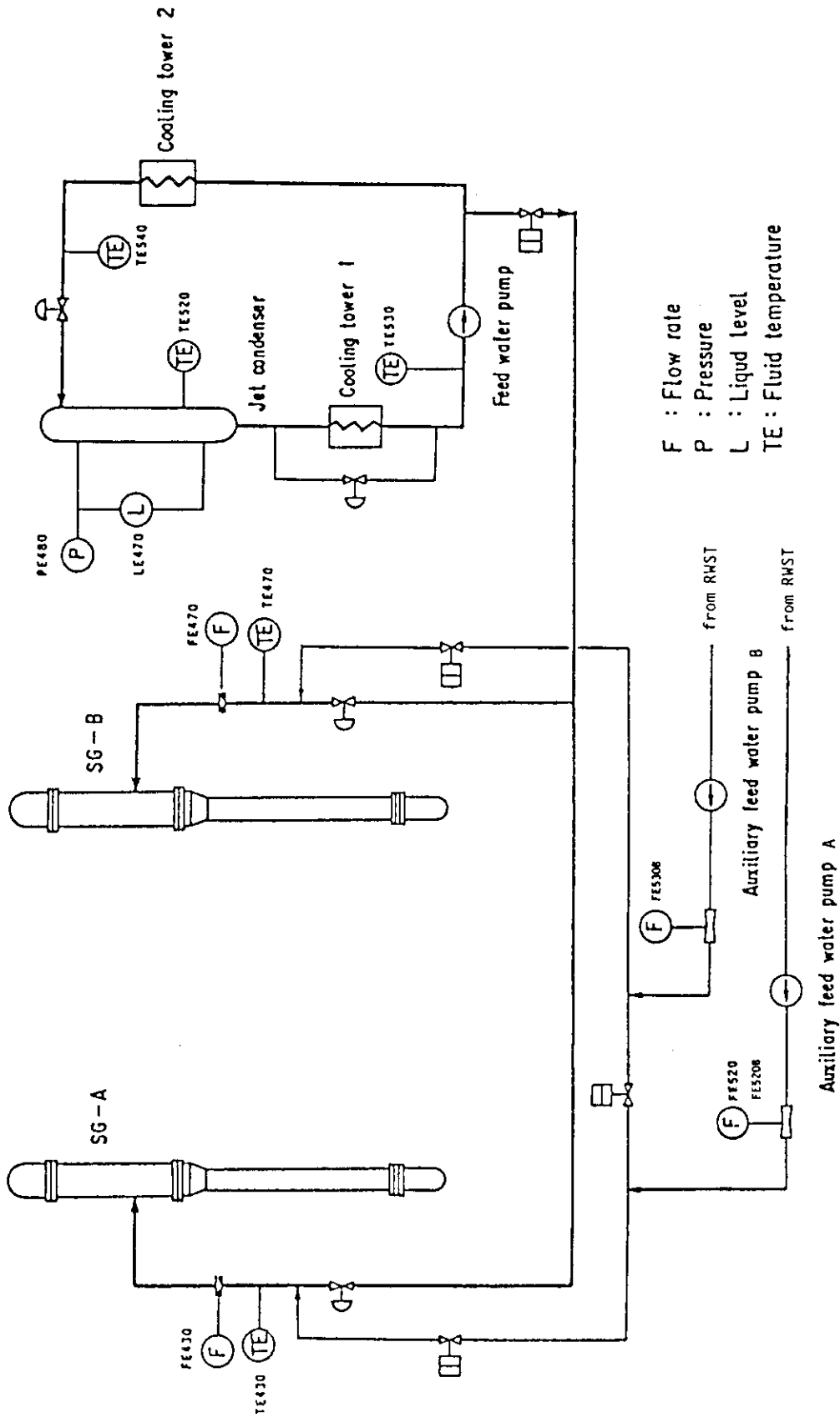


Fig. 3.7 Main feedwater line, aux. feedwater line and jet condenser instruments

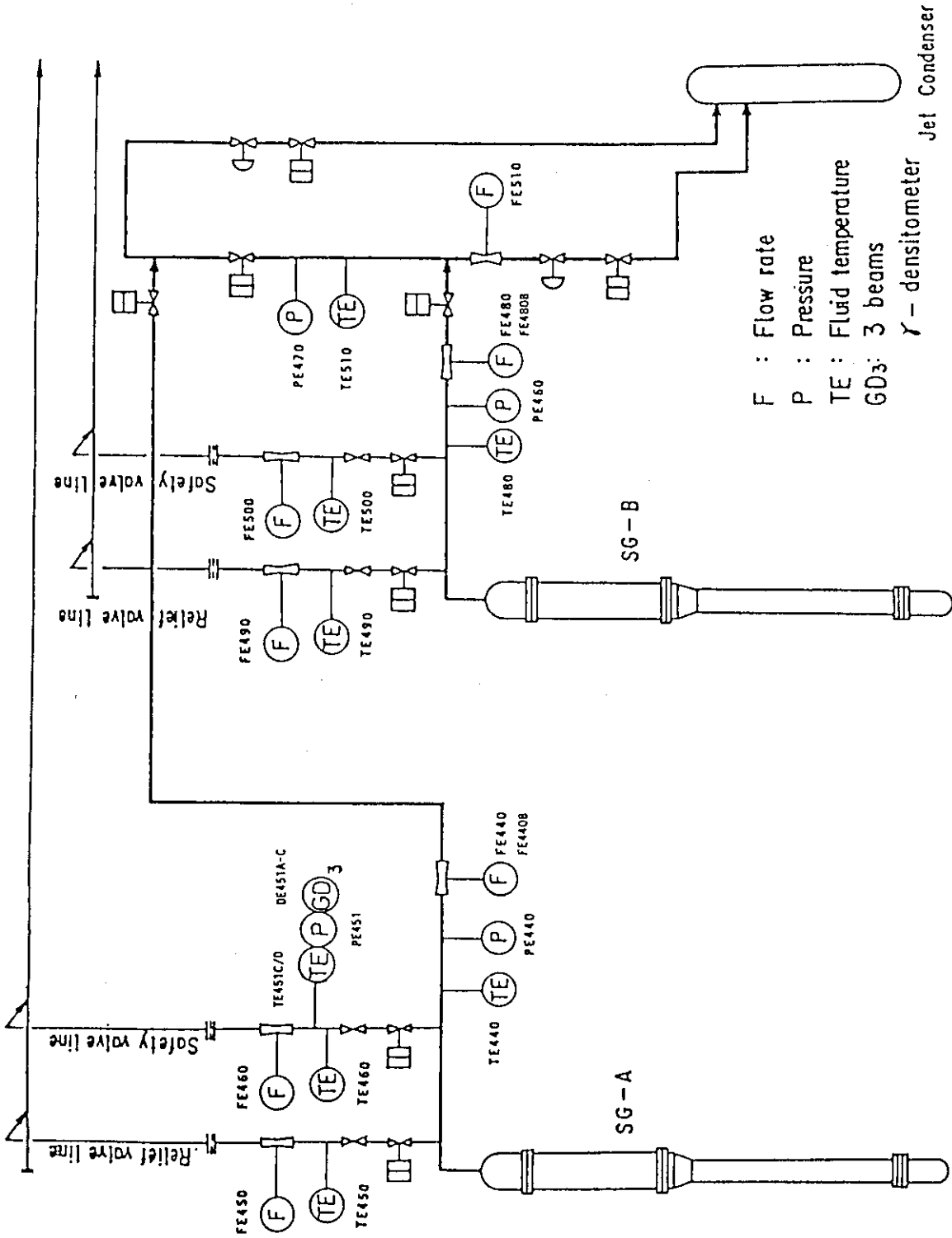


Fig. 3.8 Main steam, relief valve and safety valve lines instruments

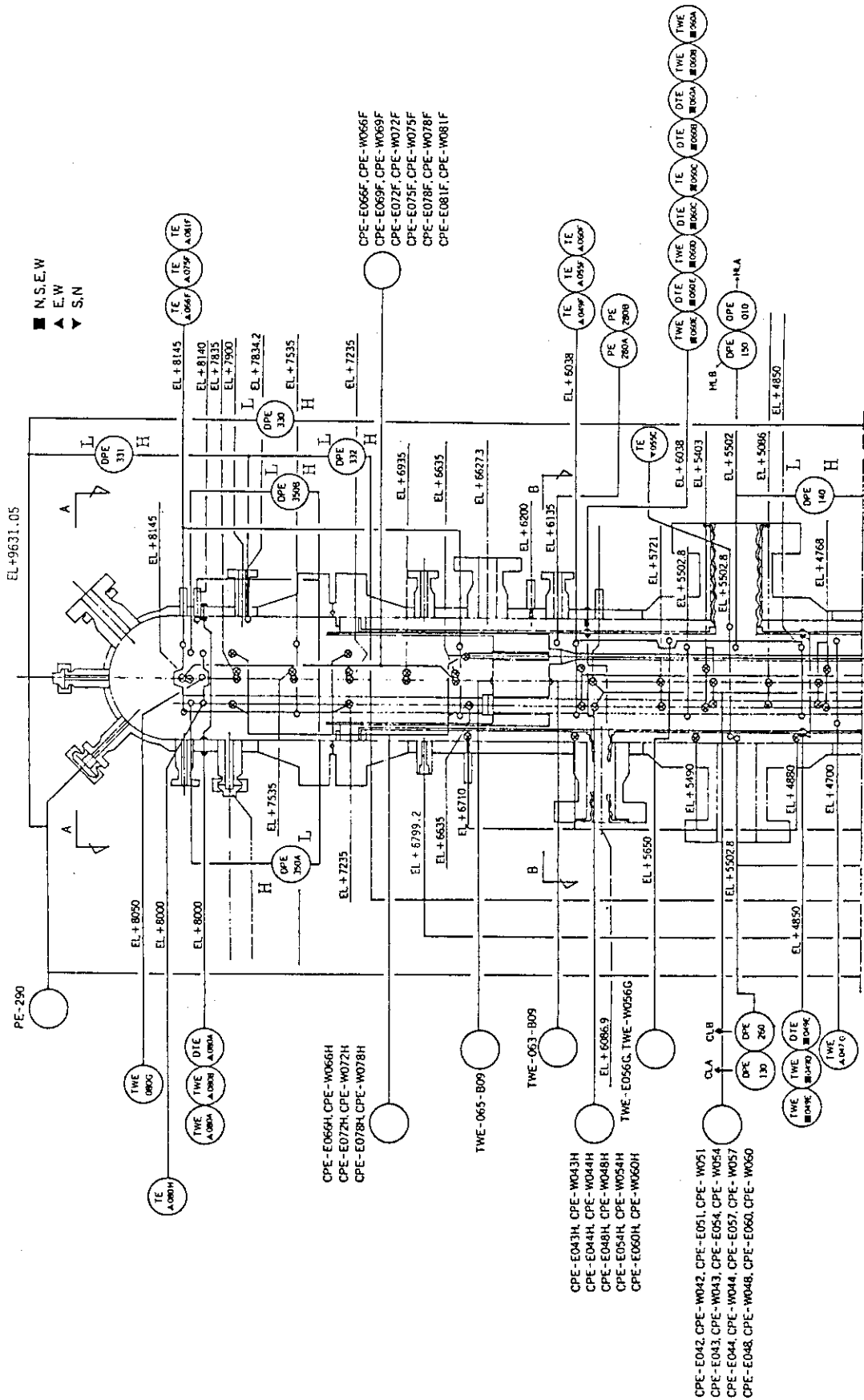


Fig. 3.9 Vertical locations of pressure vessel instruments
(except simulated core) (I)

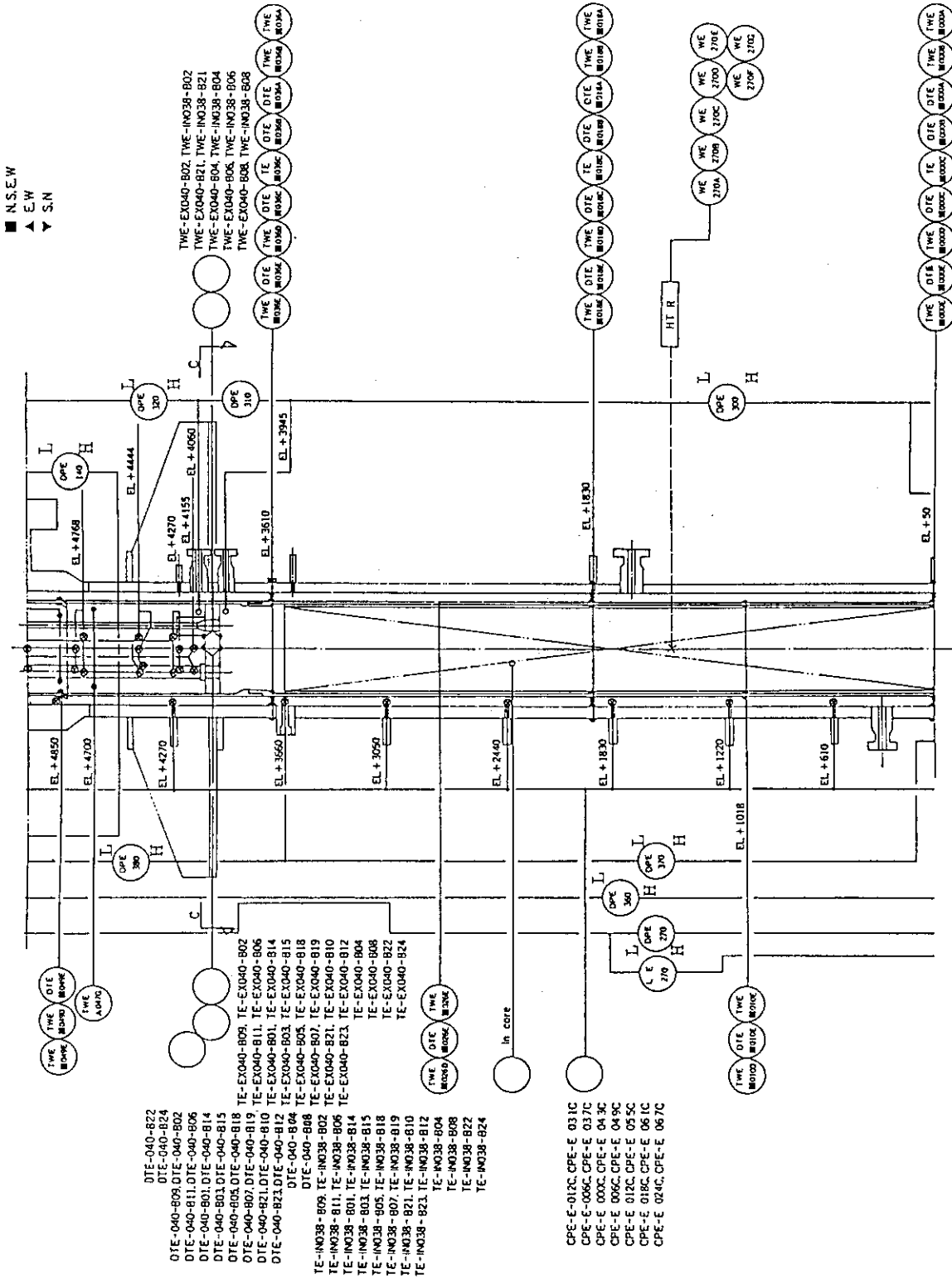


Fig. 3.10 Vertical locations of pressure vessel instruments (except simulated core) (II)

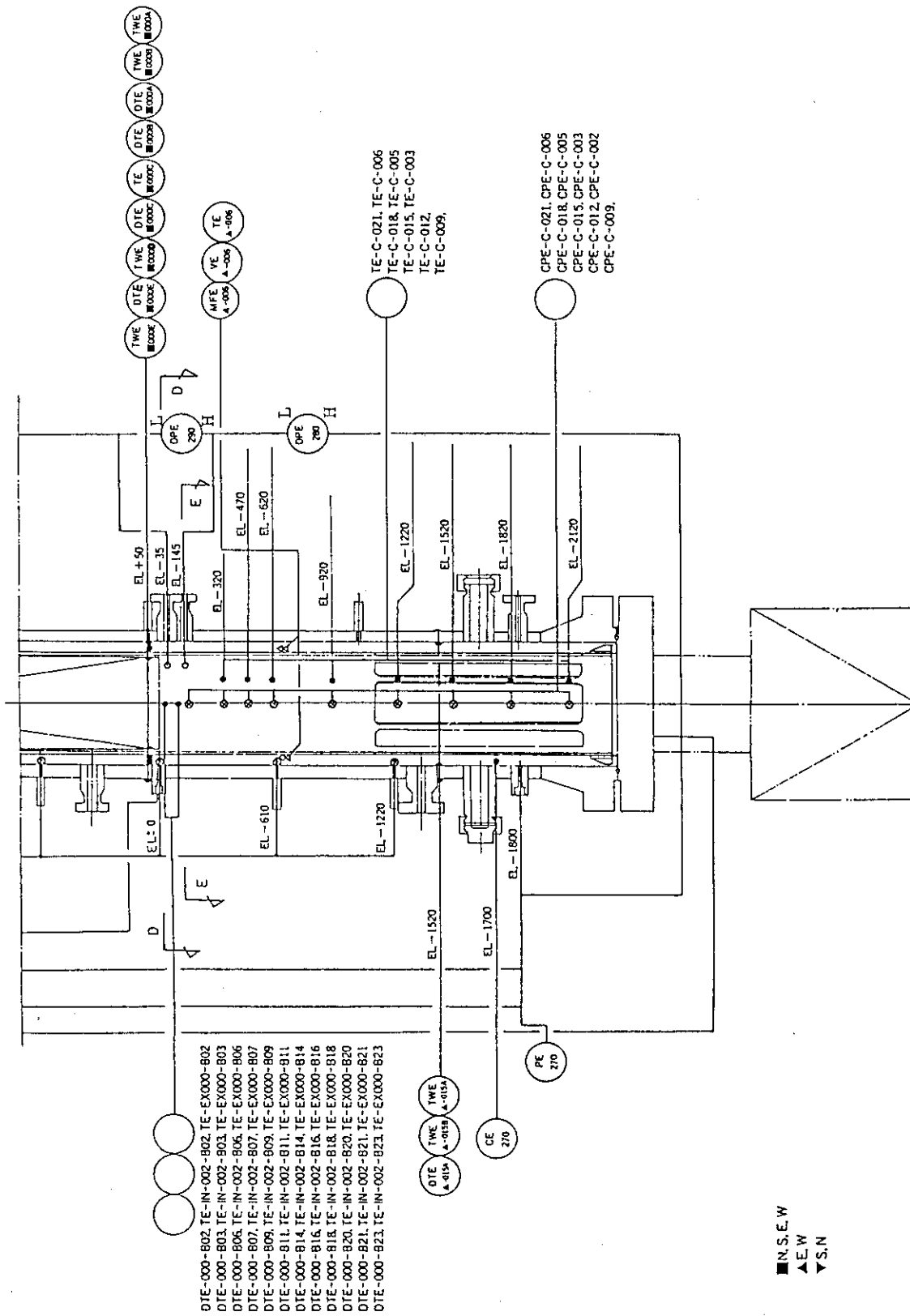


Fig. 3.11 Vertical locations of pressure vessel instruments
(except simulated core) (III)

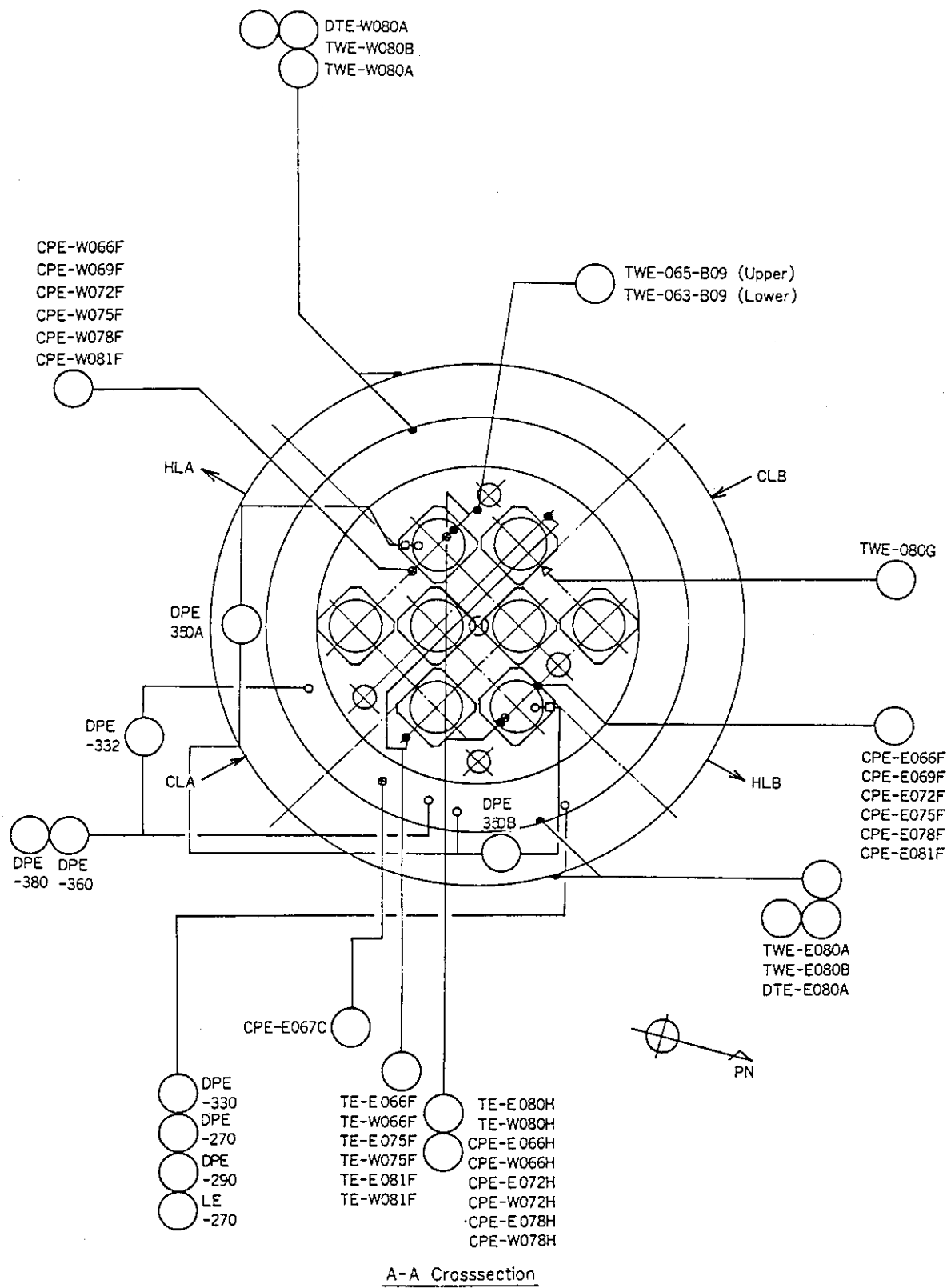


Fig. 3.12 Horizontal locations of pressure vessel instruments
(except simulated core) (1)

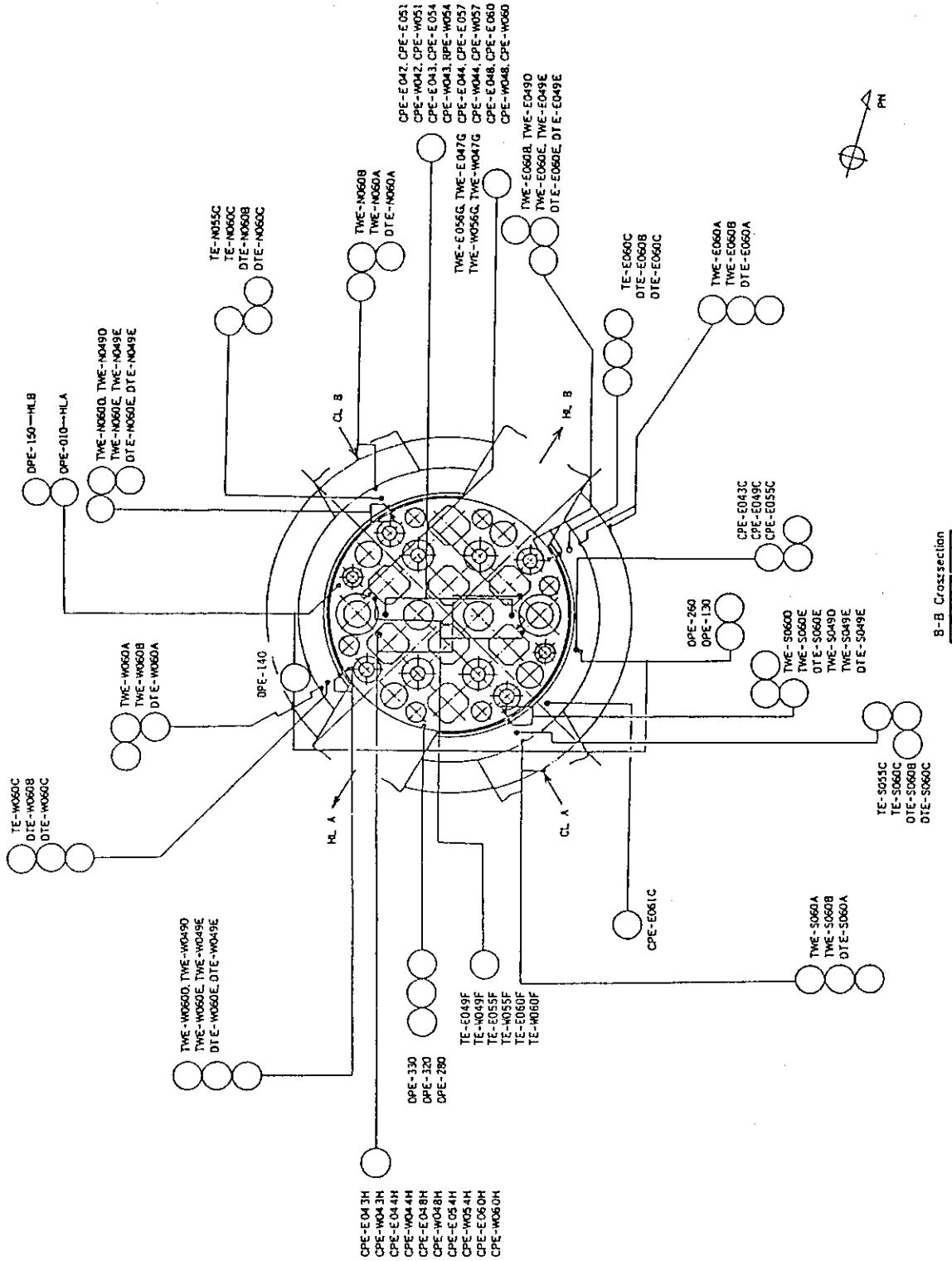


Fig. 3.13 Horizontal locations of pressure vessel instruments
(except simulated core) (II)

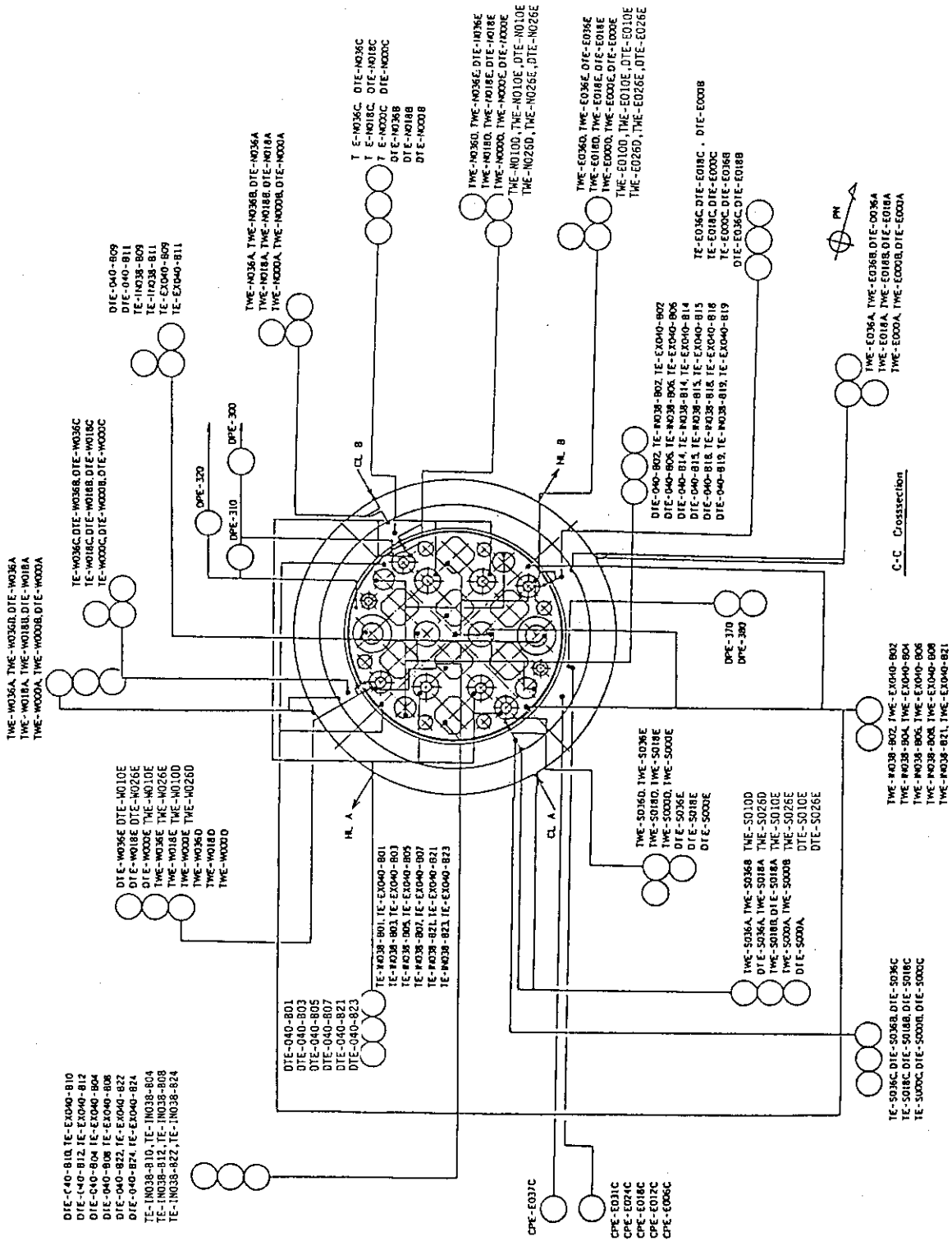


Fig. 3.14 Horizontal locations of pressure vessel instruments (except simulated core) (III)

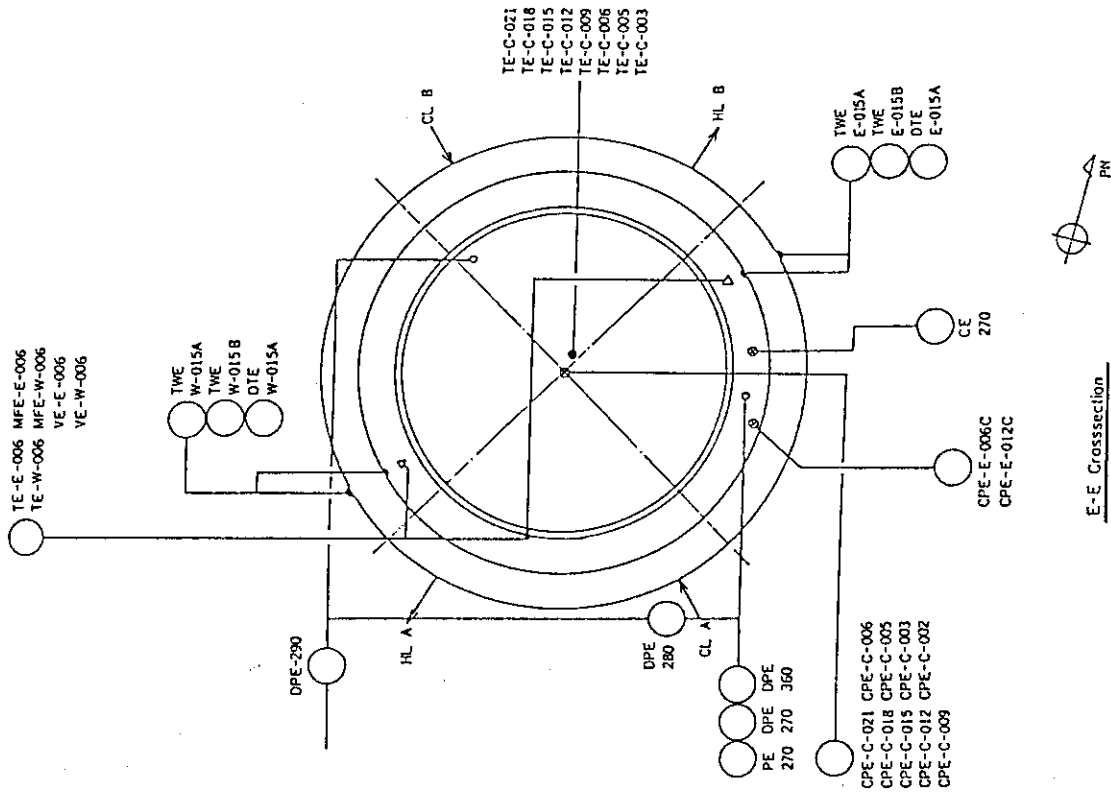


Fig. 3.16 Horizontal locations of pressure vessel instruments (except simulated core) (V)

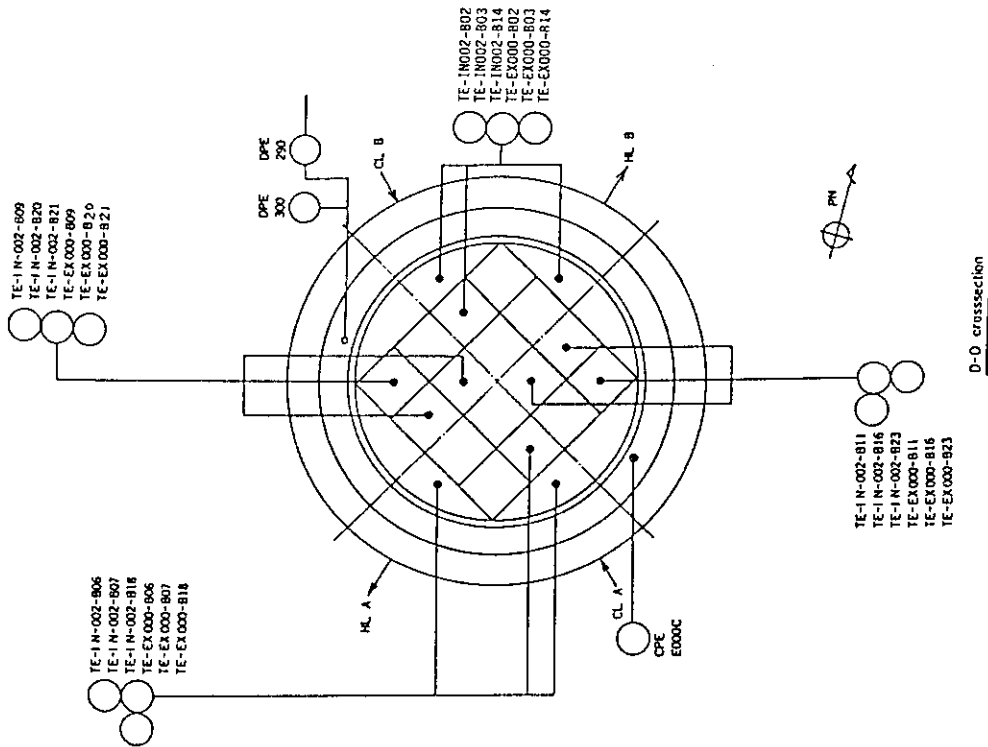
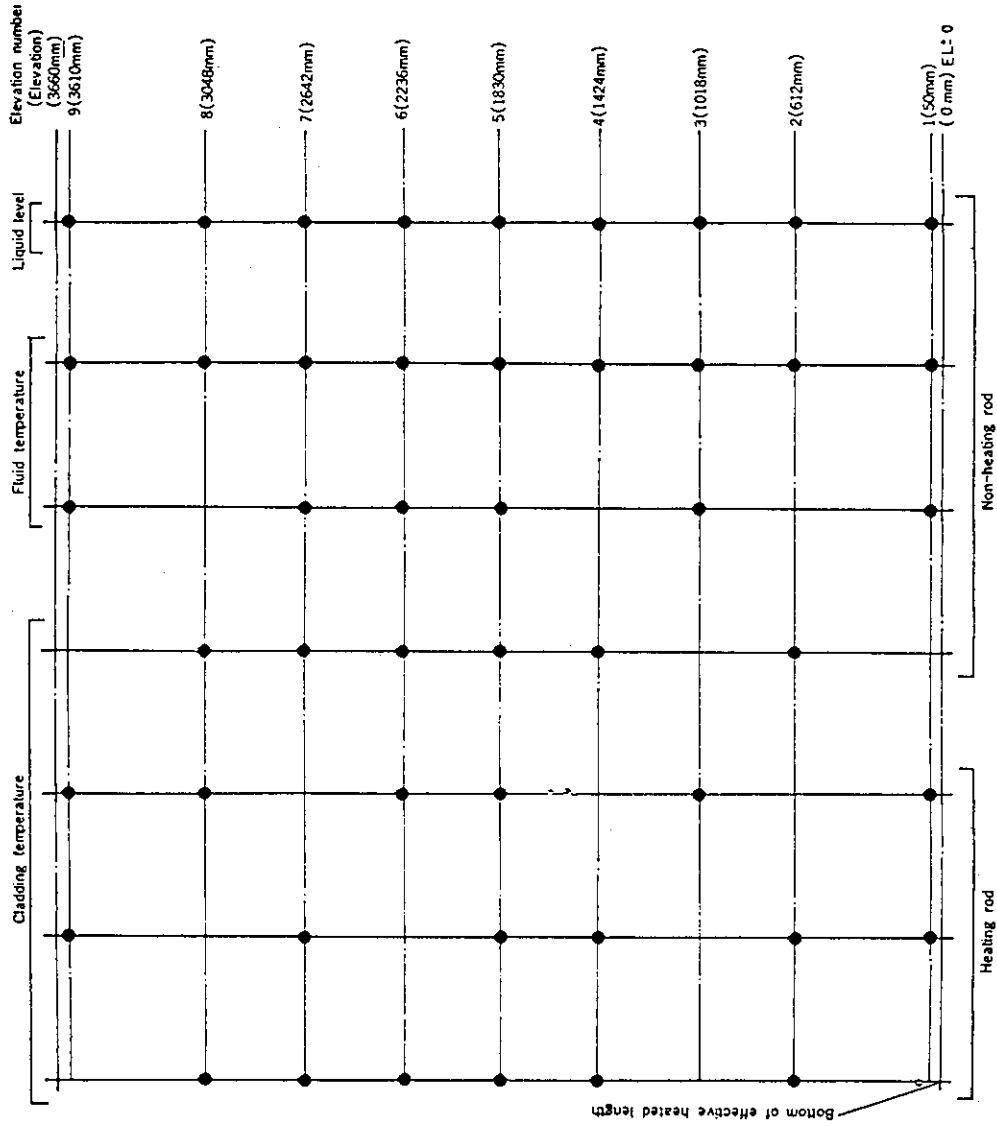
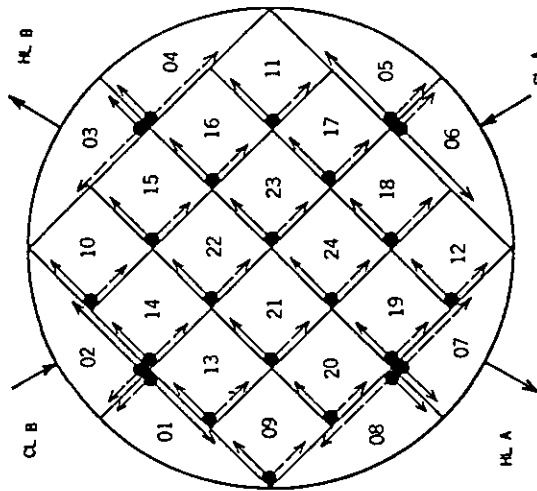


Fig. 3.15 Horizontal locations of pressure vessel instruments (except simulated core) (IV)



TWE-B12345

— Elevation number
— Rod number
— Bundle number



● (1,1)

— x
— y
Rod number is expressed as (x,y).

Fig. 3.17 Locations of simulated core instruments

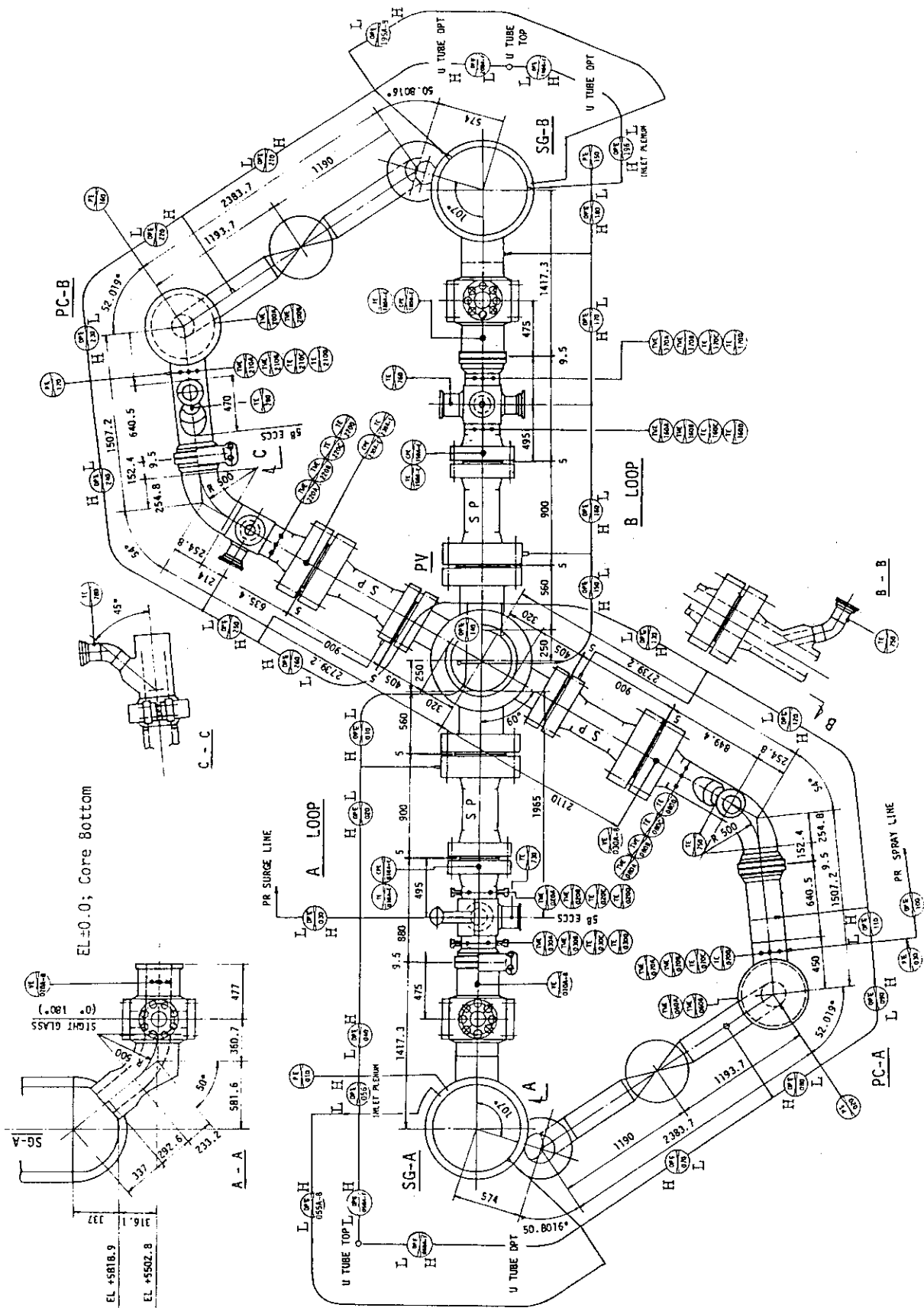


Fig. 3.18 Locations of selected instruments on primary loops A & B

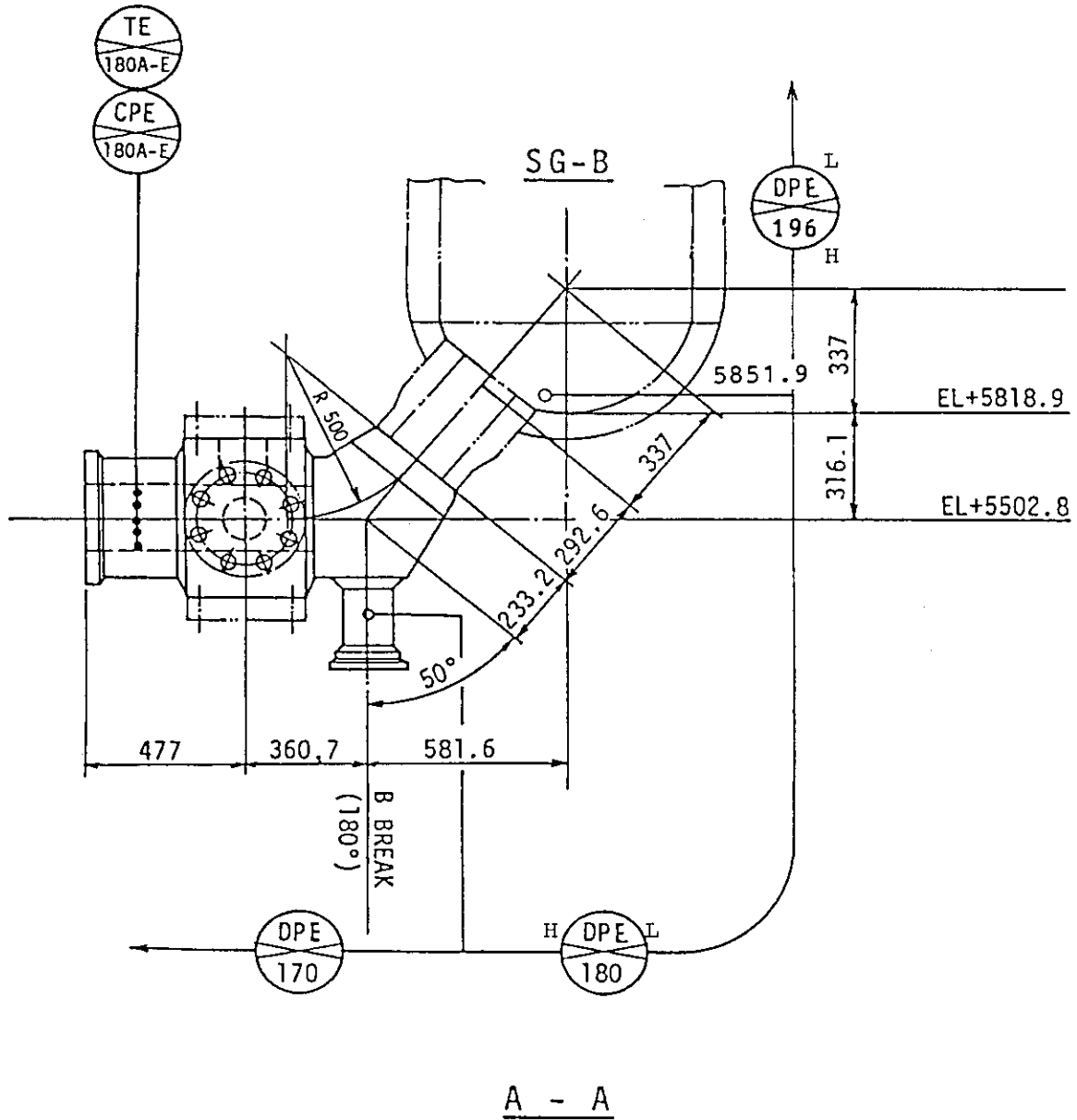


Fig. 3.19 Instrument locations of inlet pipe of steam generator B

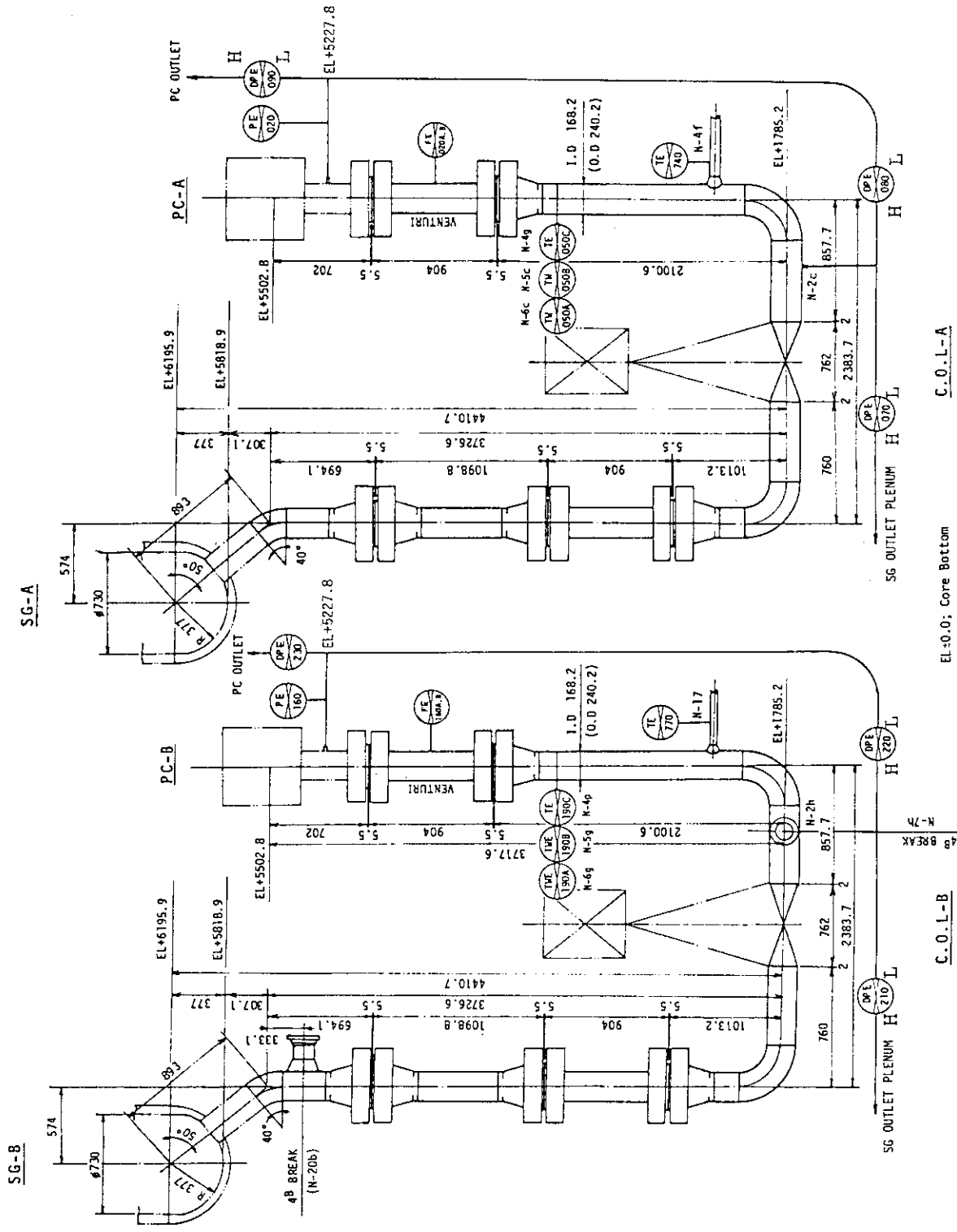


Fig. 3.20 Locations of selected instruments on crossover legs A and B (I)

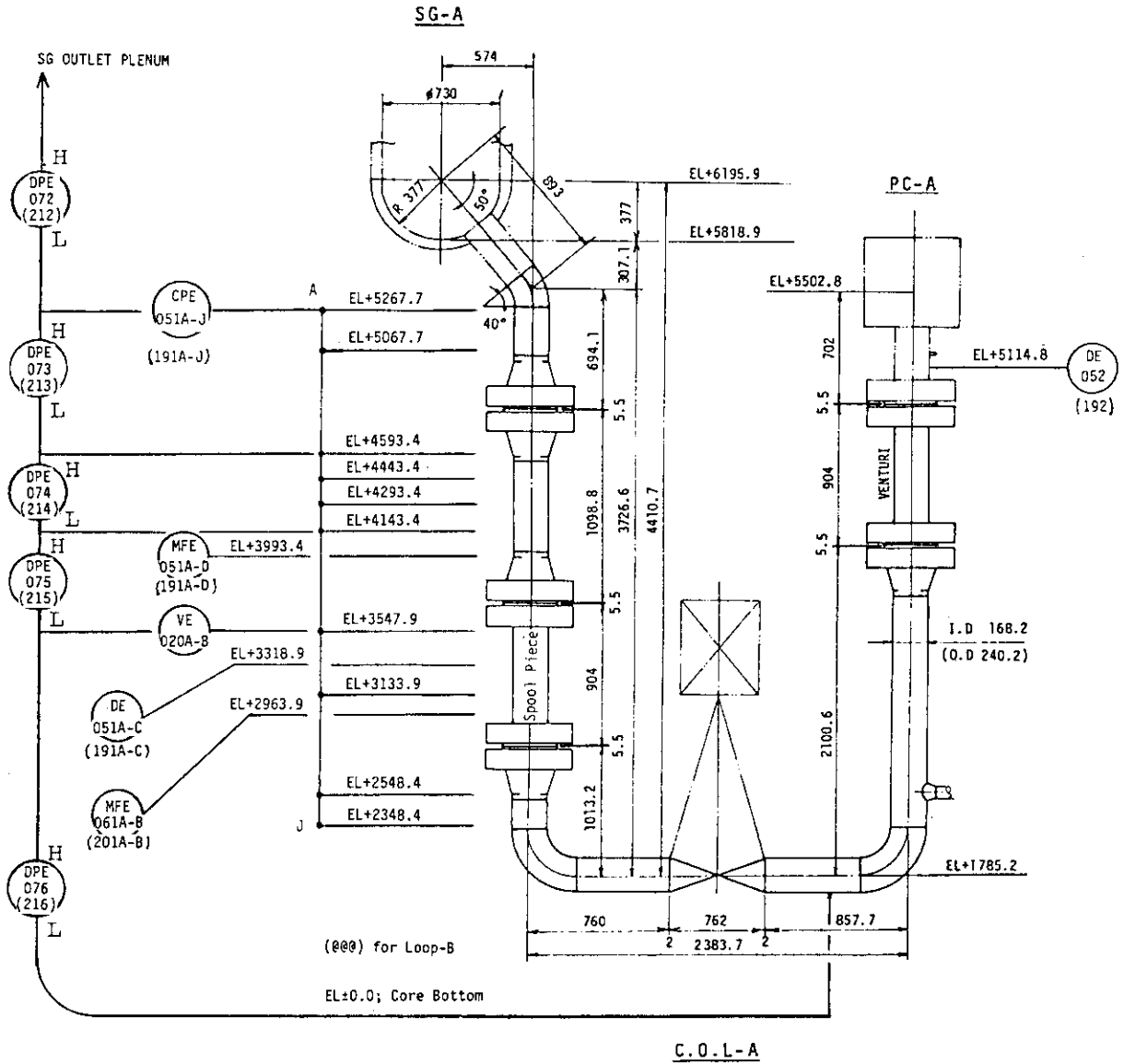


Fig. 3.21 Locations of selected instruments on crossover legs A and B (II)

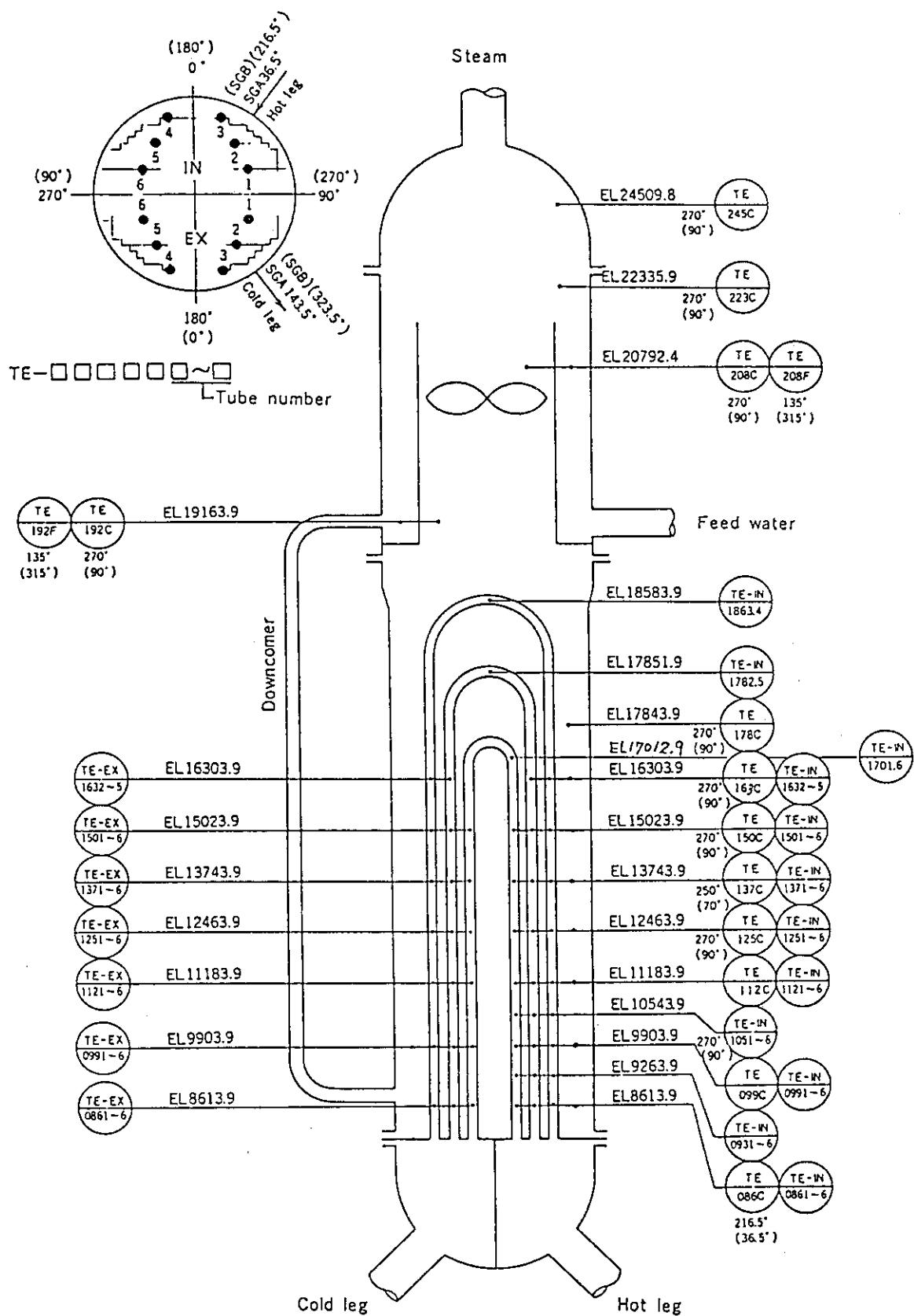


Fig. 3.22 Locations of temperature measurements for steam generators A and B (I)

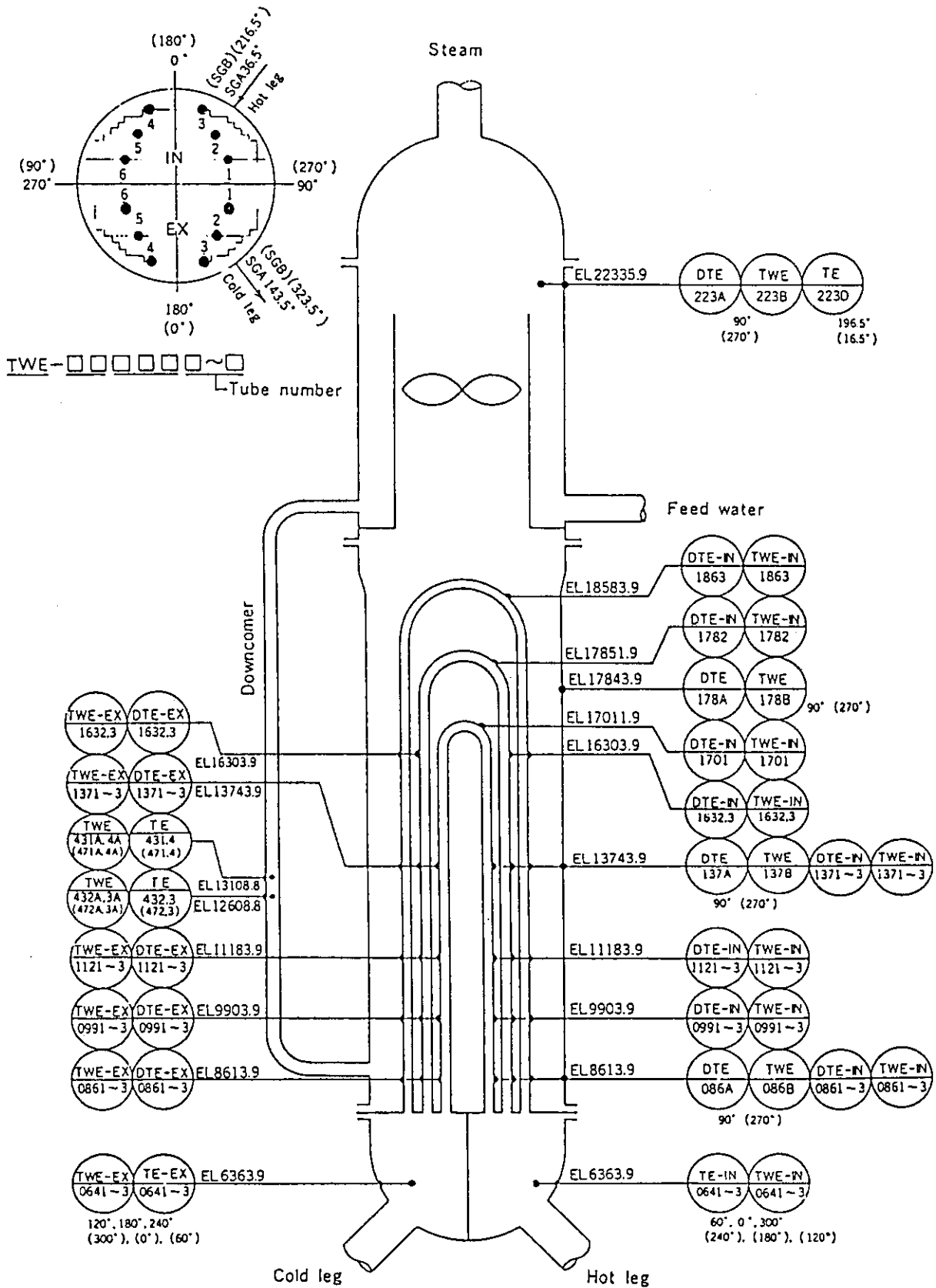


Fig. 3.23 Locations of temperature measurements for steam generators A and B (II)

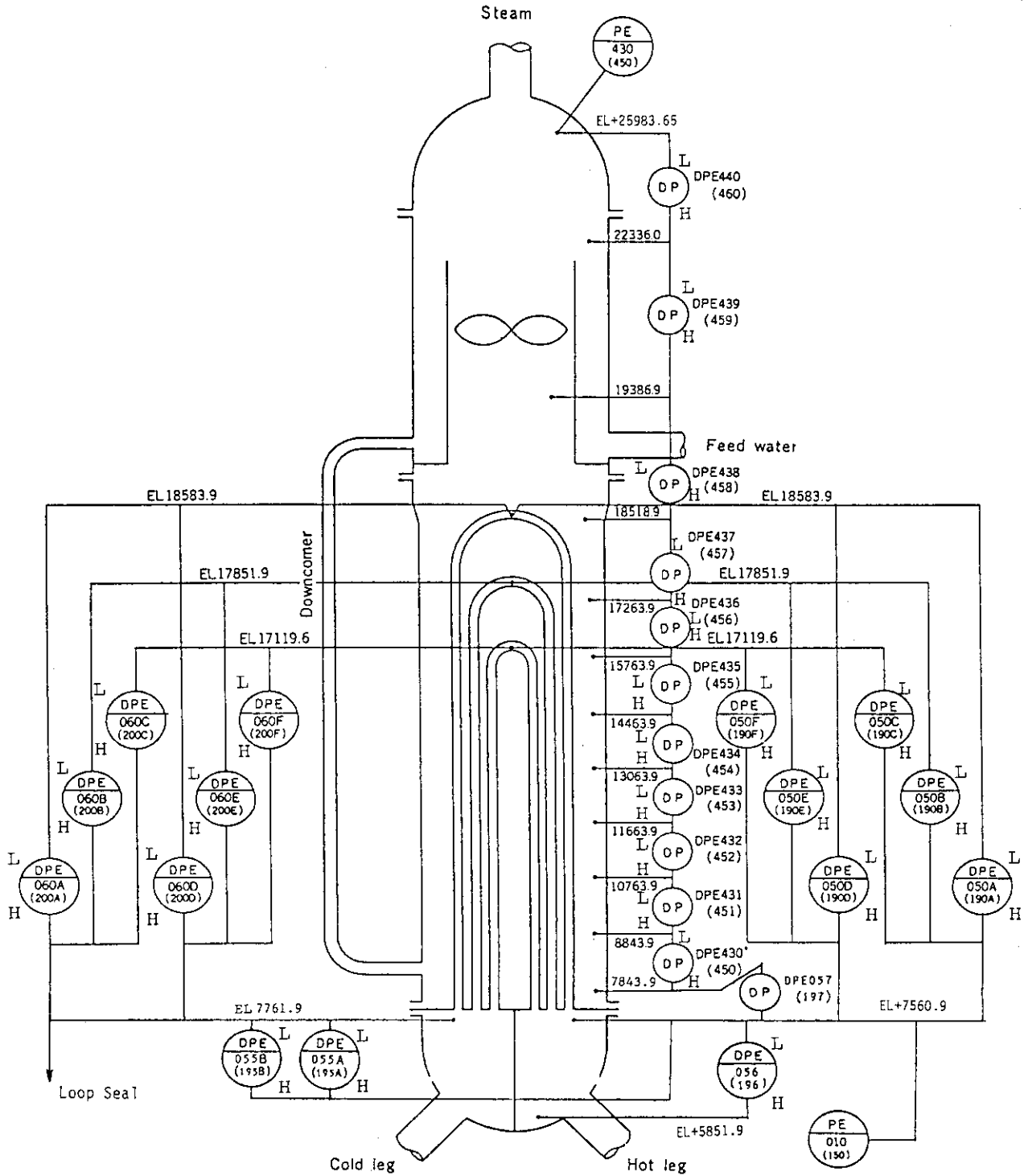


Fig. 3.24 Locations of pressure and differential pressure measurements for steam generators A and B

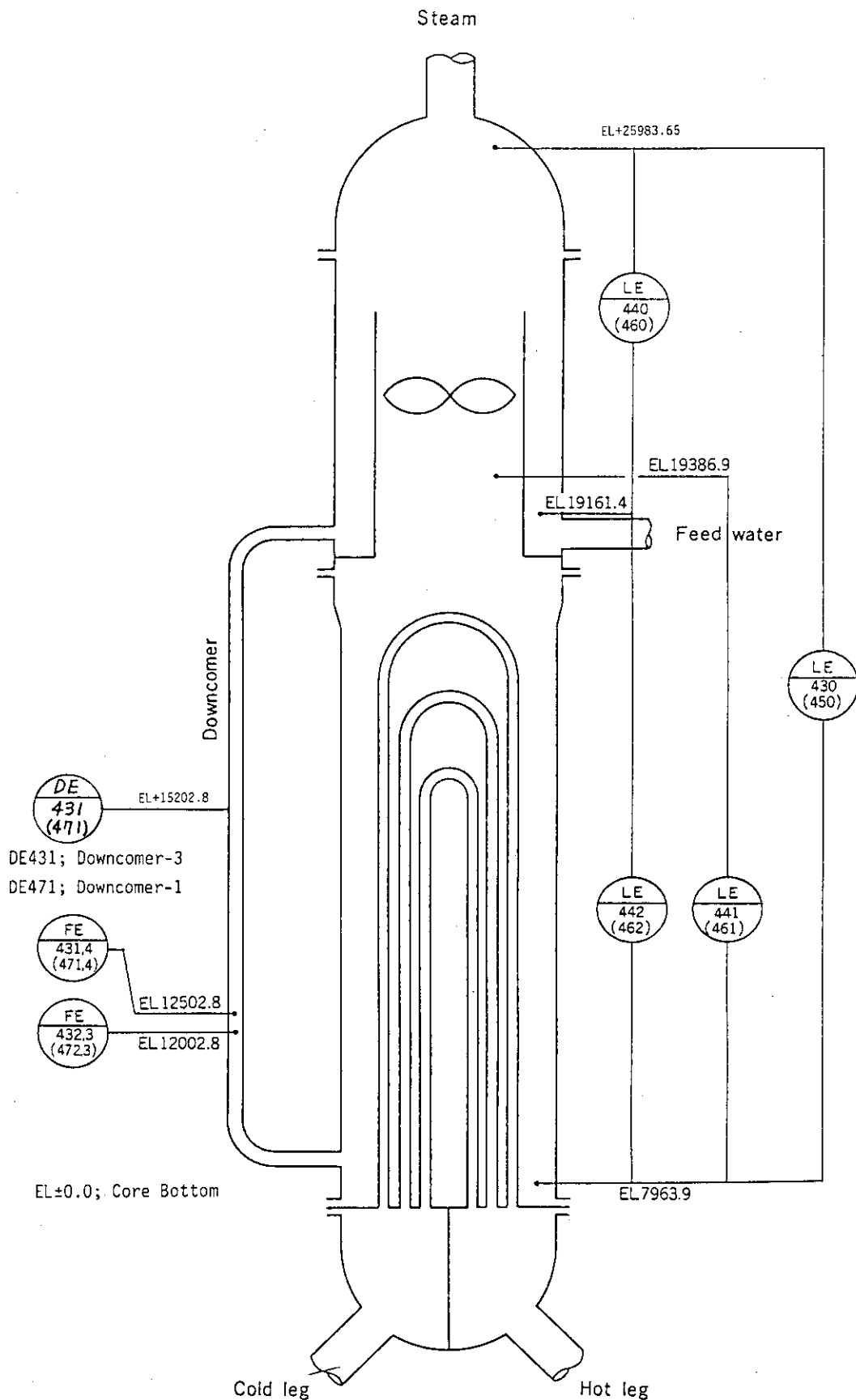


Fig. 3.25 Locations of steam generators A and B secondary liquid level and downcomer flow measurements

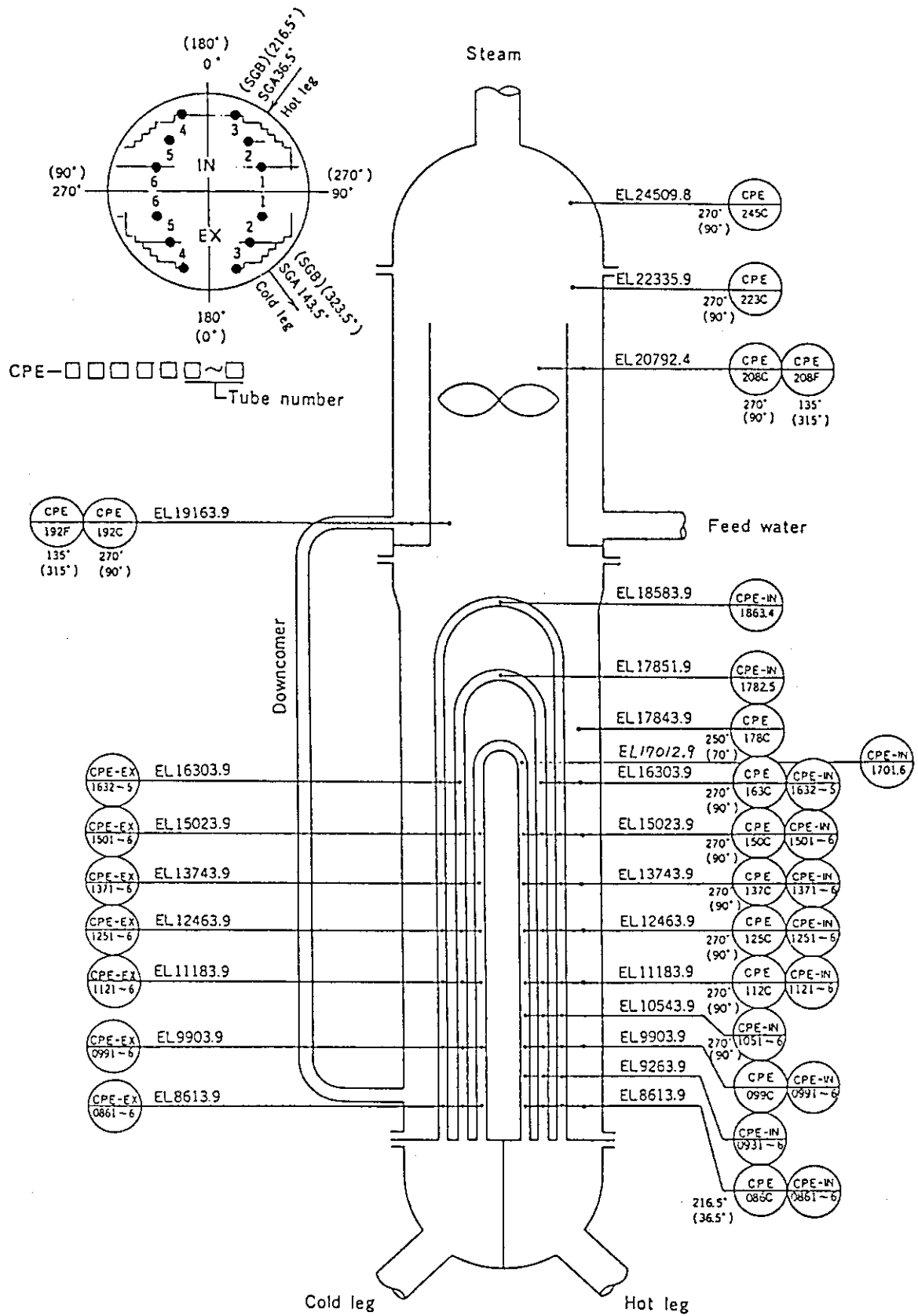


Fig. 3.26 Locations of steam generators A and B conductivity probe measurements

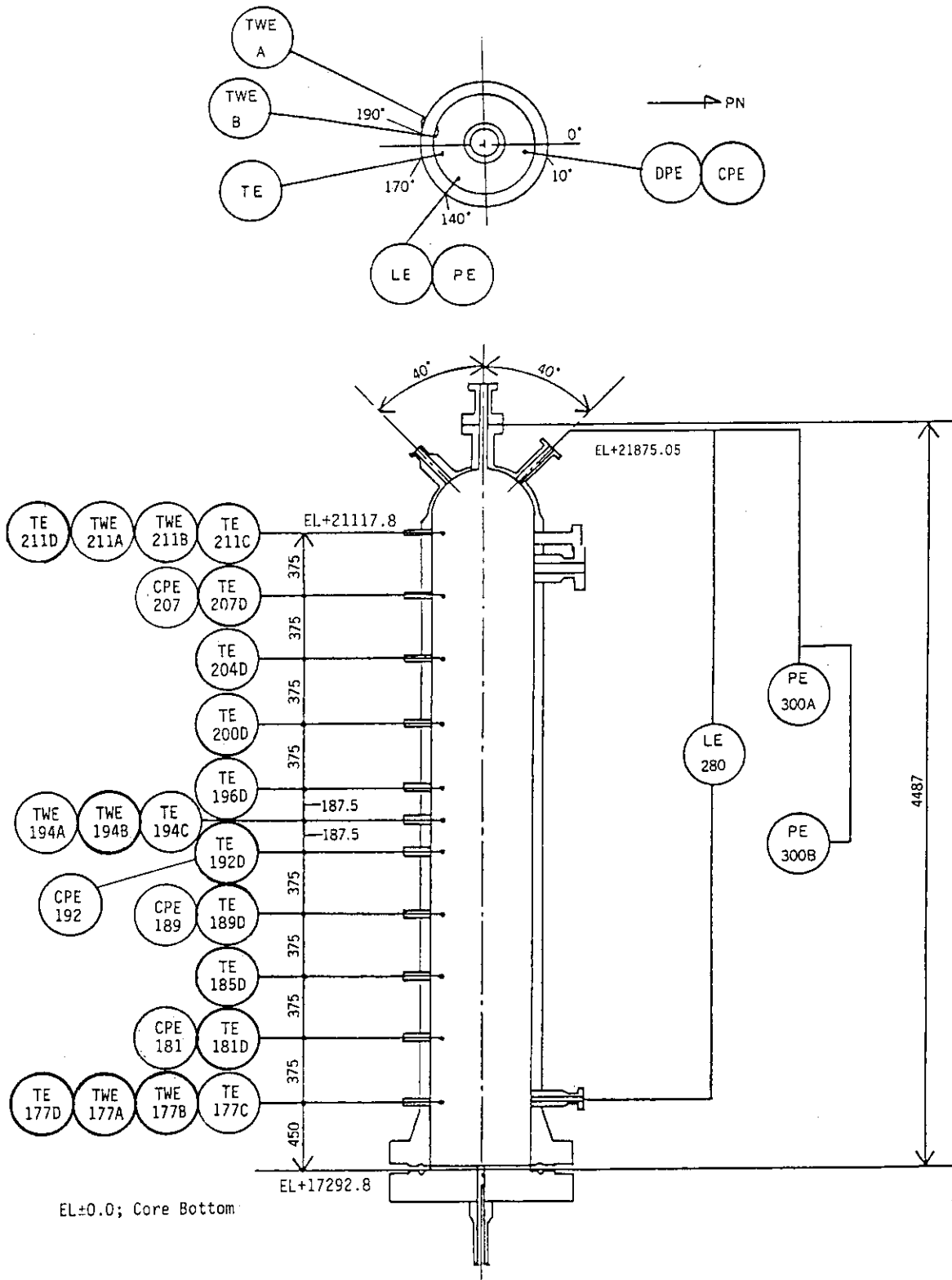


Fig. 3.27 Locations of selected instruments on pressurizer (I)

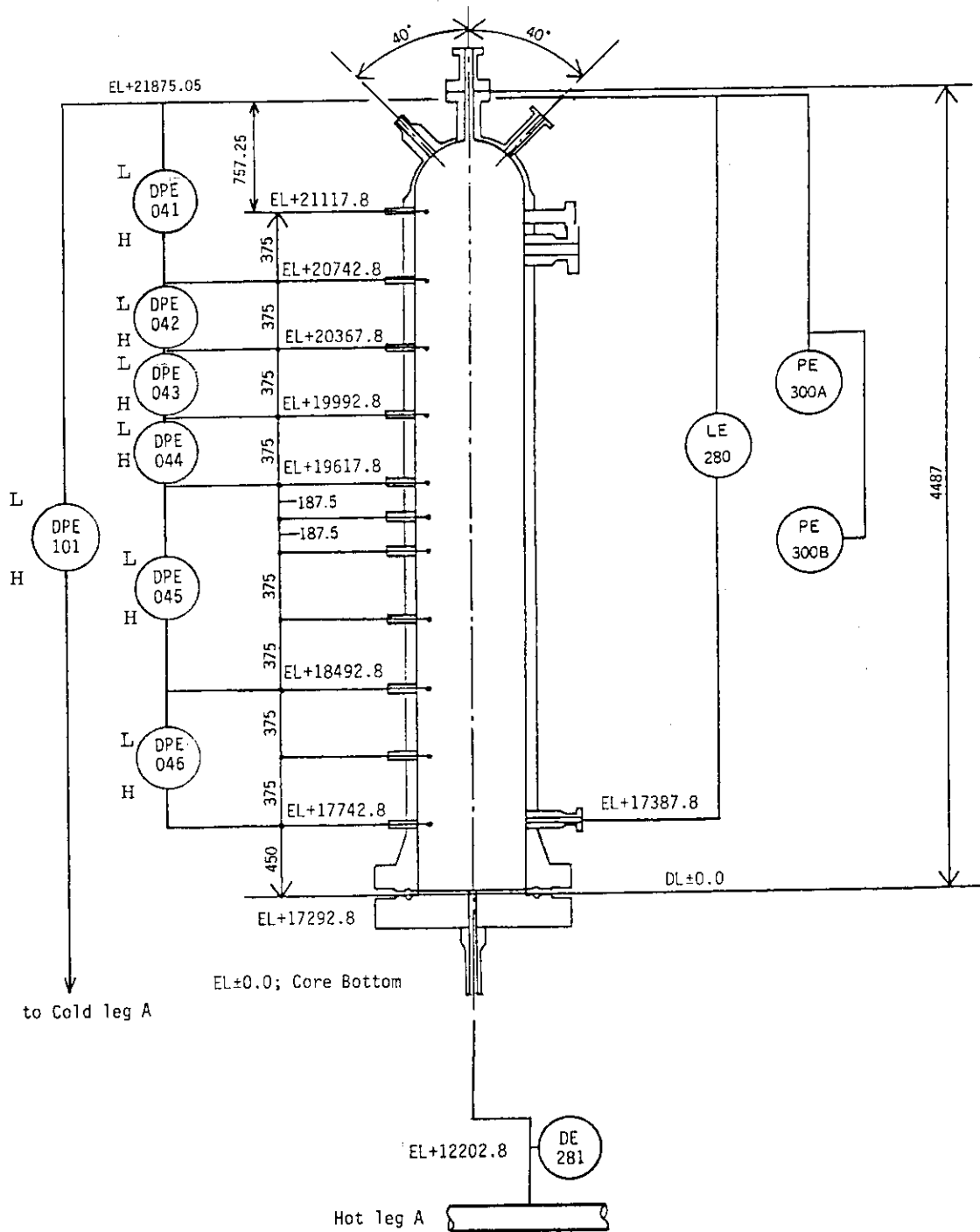


Fig. 3.28 Locations of selected instruments on pressurizer (II)

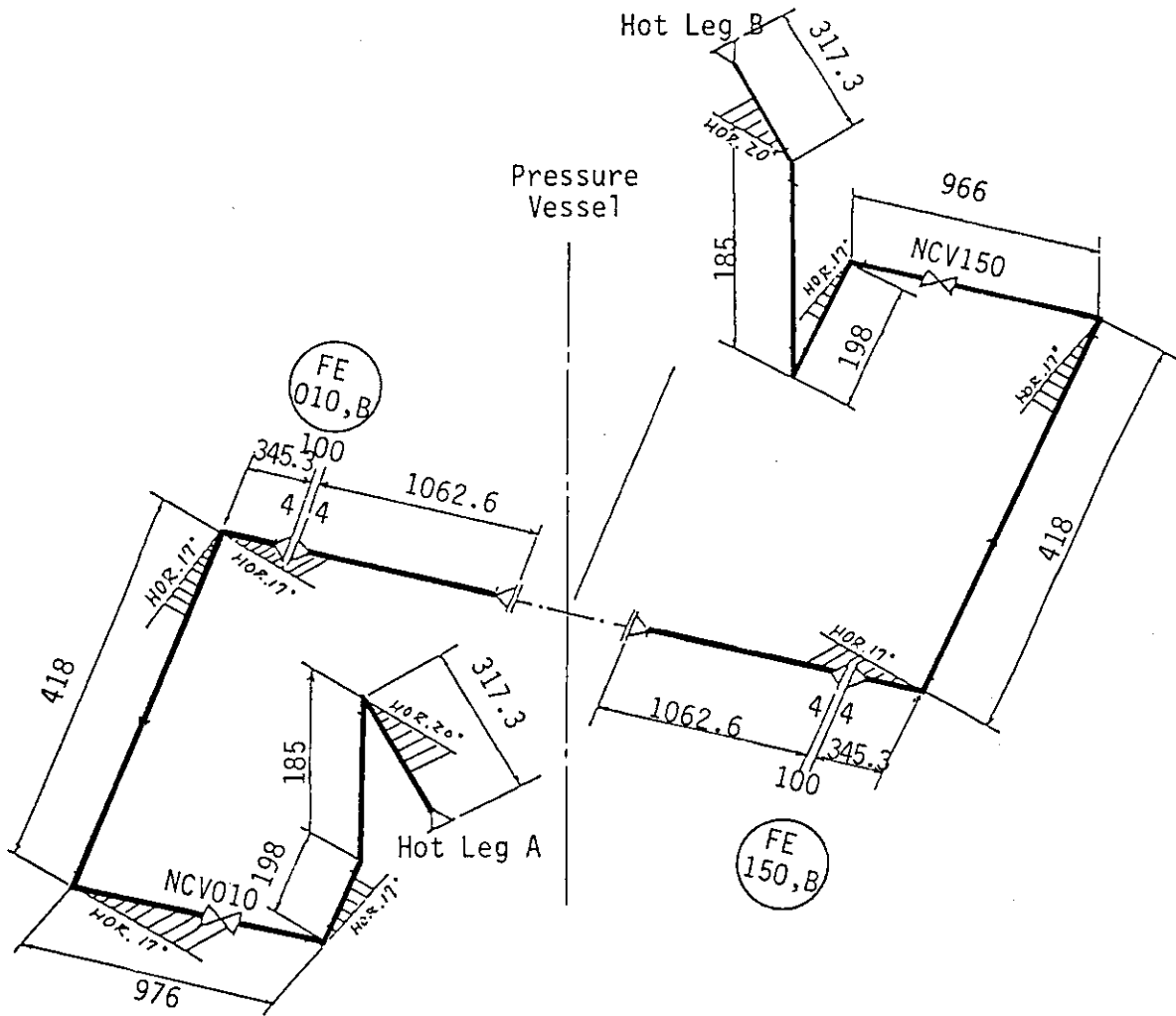


Fig. 3.29 Hot leg leak lines for primary loops A and B

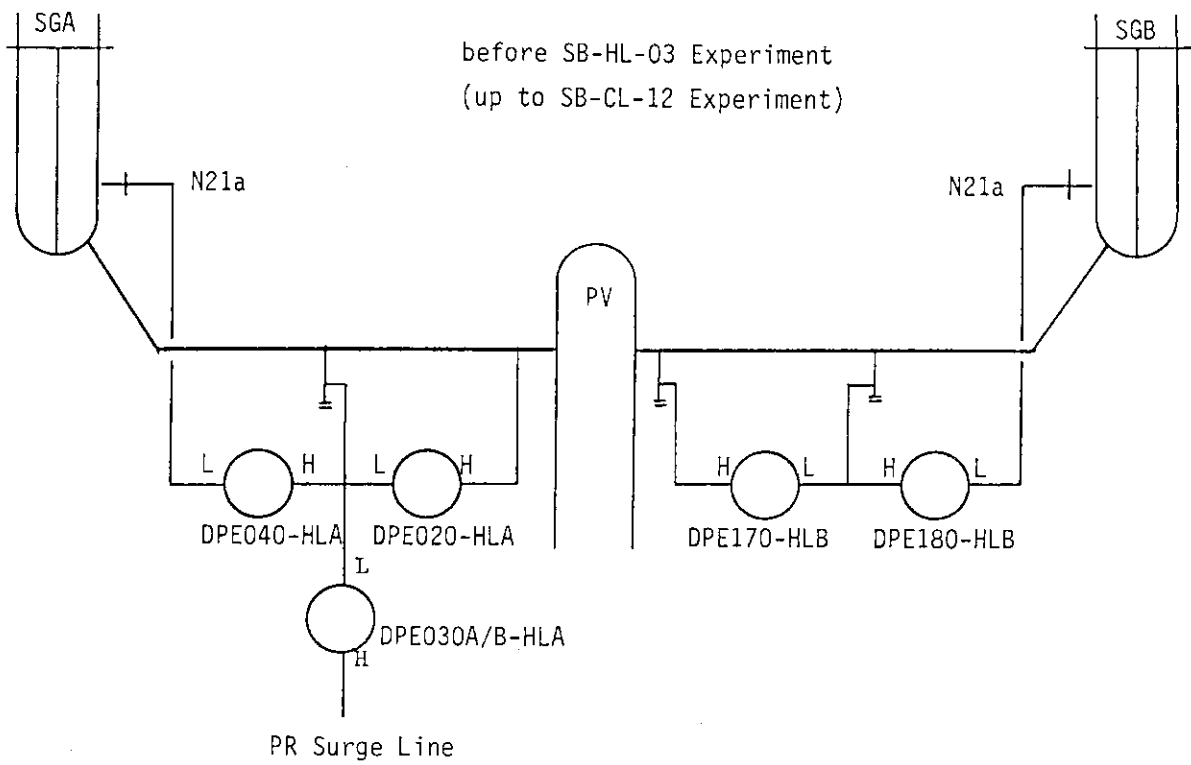


Fig. 3.30 Corrected instrument locations (I)

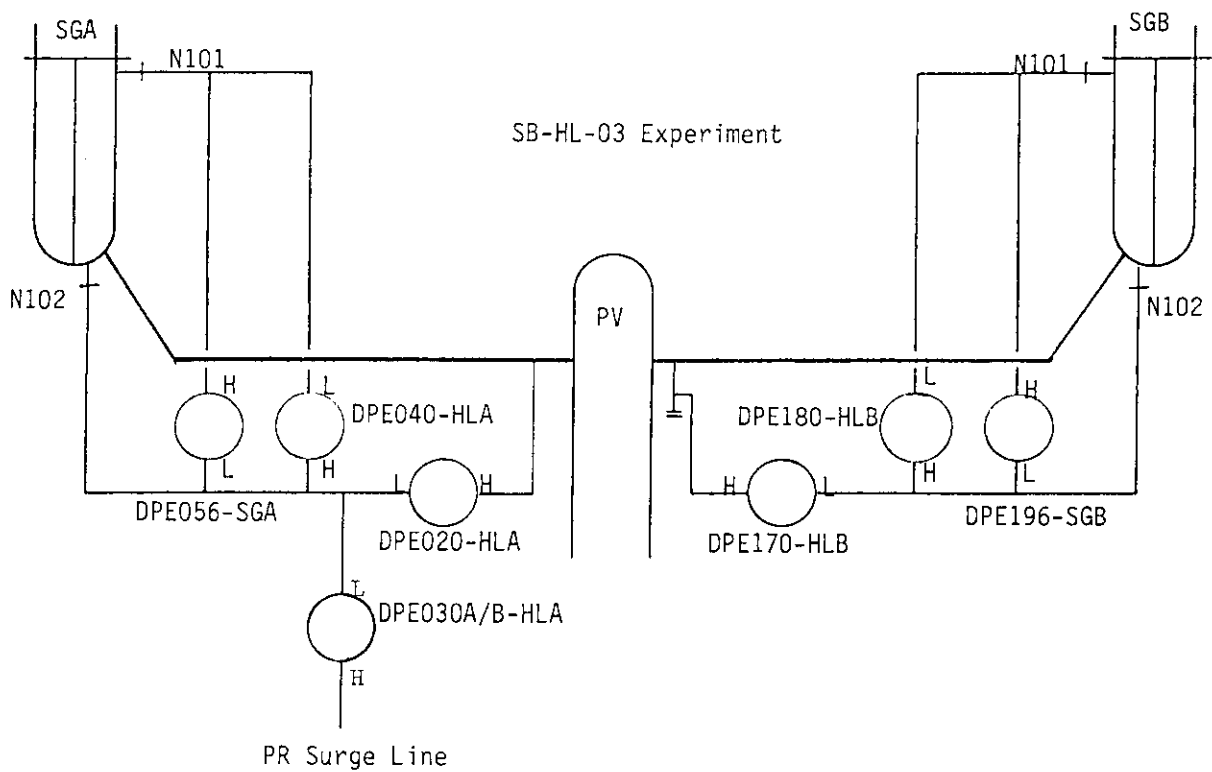


Fig. 3.31 Corrected instrument locations (II)

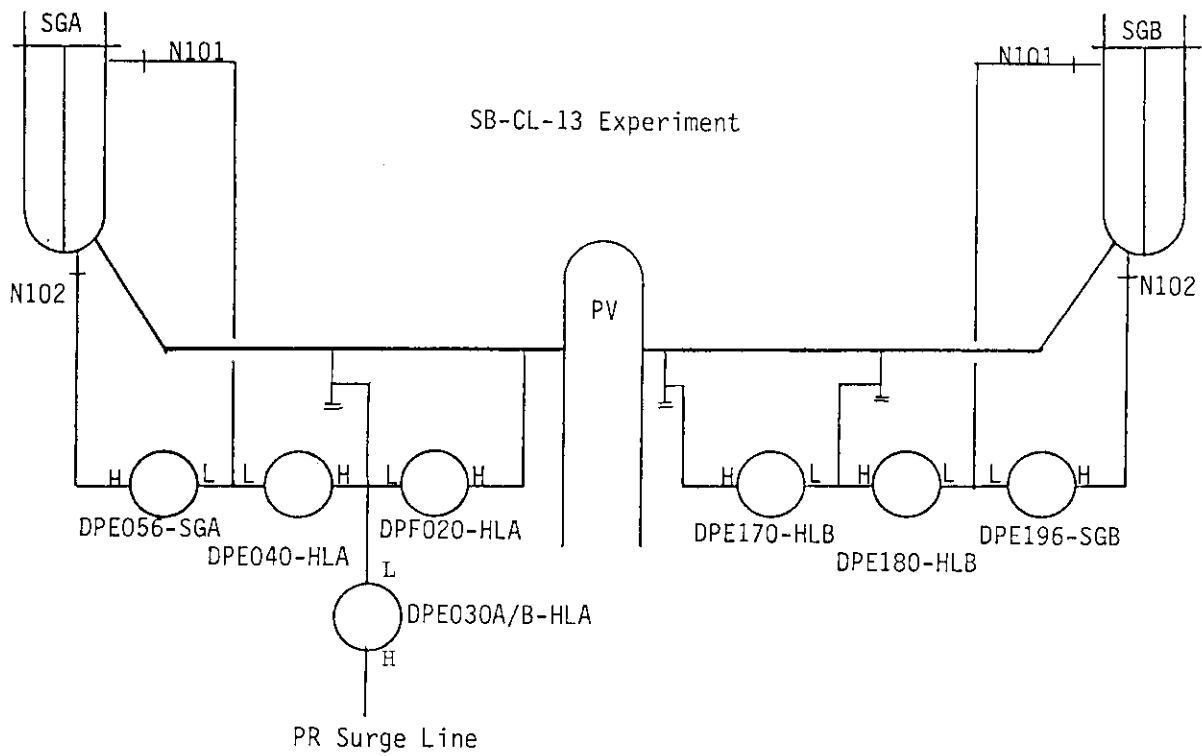


Fig. 3.32 Corrected instrument locations (III)

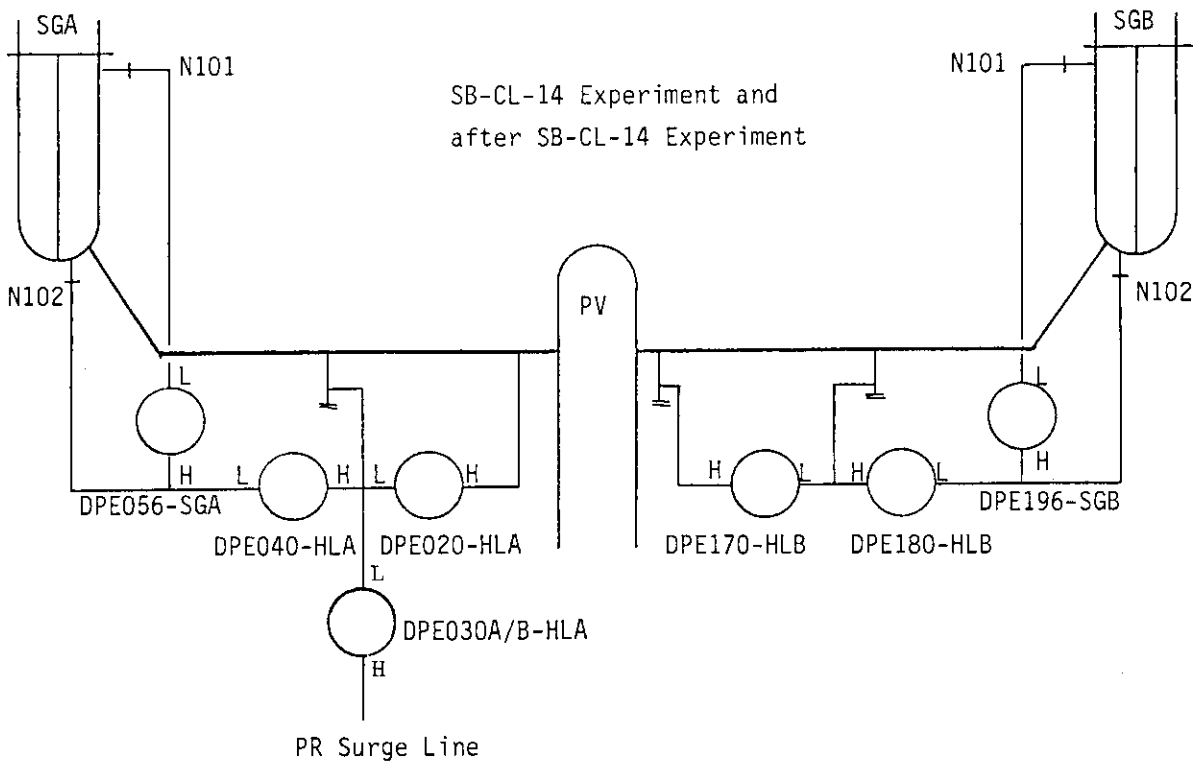
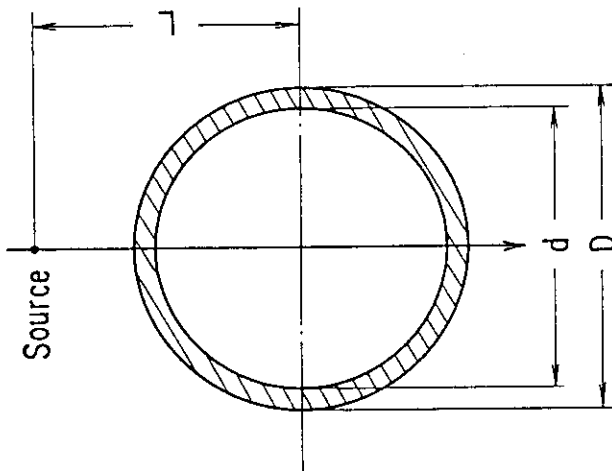
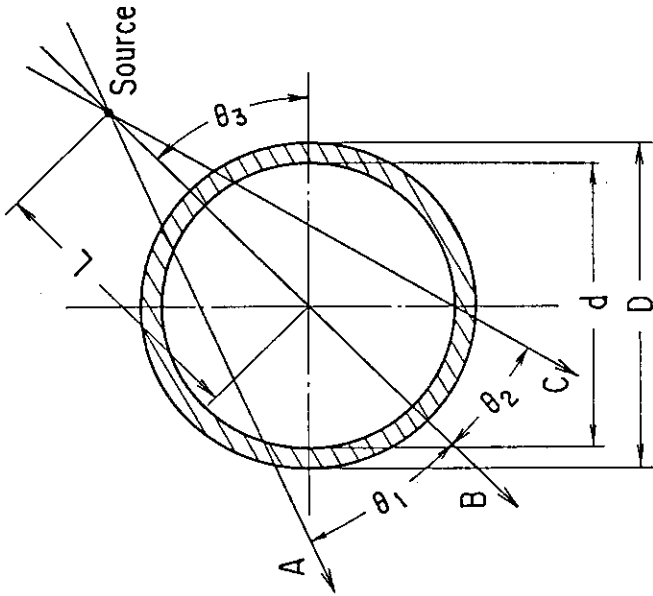


Fig. 3.33 Corrected instrument locations (IV)



Three - Beam Densitometer

ID No.	D (mm)	d (mm)	L (mm)	θ_1 (Degree)	θ_2 (Degree)	Pipe Direction/ θ_3
DE 1~3	295.0	207.0	212.9	22.10	14.35	HLA, Horiz./ 45.0
" 7~9	"	"	"	"	"	CLA, " / .
" 10~12	"	"	"	"	"	HLB, " / .
" 16~18	"	"	"	"	"	CLB, " / .
DE 4~6	240.2	168.2	240.0	15.9	11.2	LSA, Vertical/—
" 13~15	"	"	"	"	"	LSB, " / —
" 27~29	216.3	190.9	240.0	18.1	12.3	SGA, Horiz./
" 30~32	114.3	87.3	180.0	16.3	8.3	Break Unit, —
" 33~35	"	"	"	"	"	" " , —

Single - Beam Densitometer

ID No.	D (mm)	d (mm)	L (mm)	Pipe Name/Direction
DE 19	240.2	168.2	305.0	Loopseal A/Vertical
" 20	"	"	"	Loopseal B/ "
" 21	89.1	66.9	155.0	PR Surge L. "
" 22	48.6	34.4	145.0	PORV L./Horiz.
" 23	60.5	43.1	150.0	PR SV L./ "
" 24	"	"	"	PR Vent L./ "
" 25	114.3	97.1	170.0	SG-A DC/Vertical
" 26	"	"	"	SG-D DC/ "

Fig. 3.34 Single and three beam gamma densitometers in LSTF system

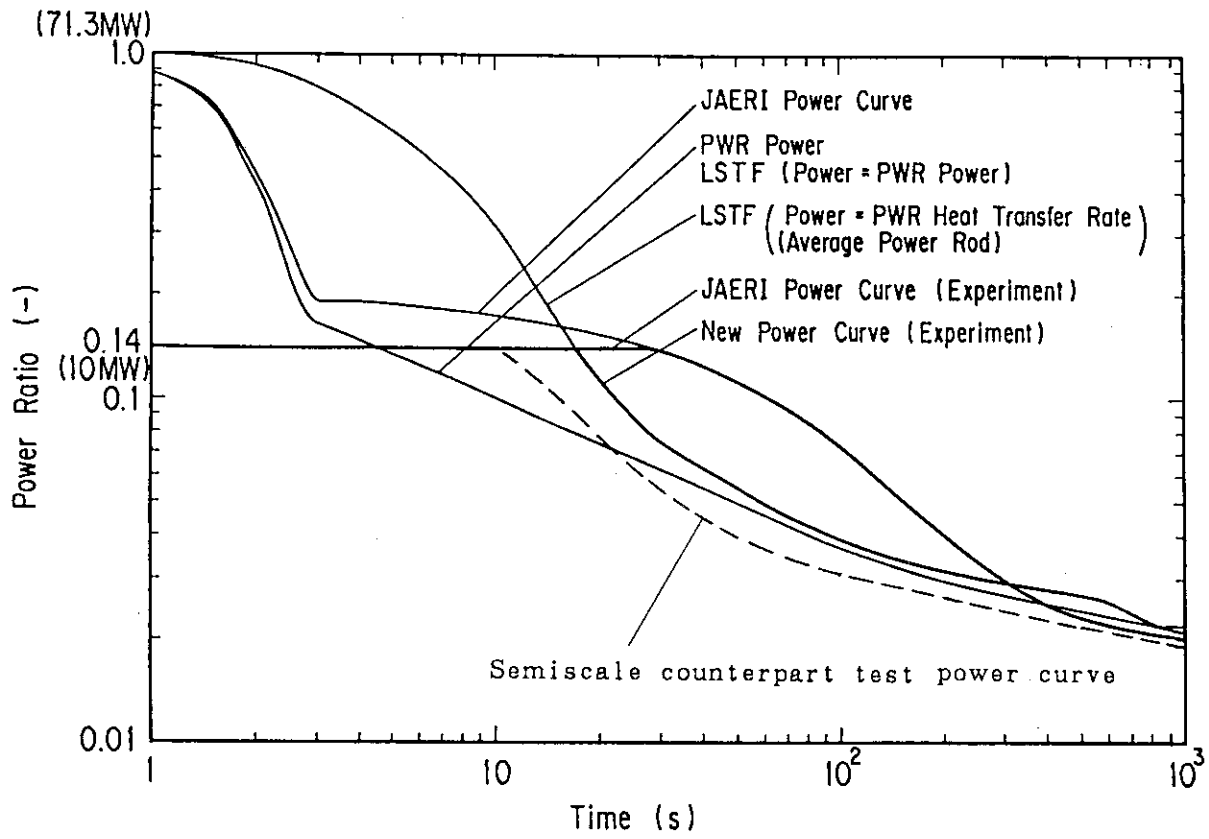


Fig. 3.35 Three core power control curves for LSTF tests

Symbol Mark List

















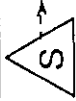






	Sensor (Electricity, Pressure, Differential Pressure)		Display
	Thermometer (T/C)		P.I.D. Controller
	Watt Recorder		Distributor
	Watt Inverter		F
	Data Logger		Converters
	Analog/Digital Converter		Arithmetic Units
	Digital Analog Converter		Solenoid Valve
	Comparator		ON-OFF Valve
	Sequence Controller		Control Valve
	Phase Controller		Tachometer
	Silicone Controlled Rectifier		Compressed Air Line
			Load (Heater)

Fig. 3.36 Symbol mark list for control logics flow sheet

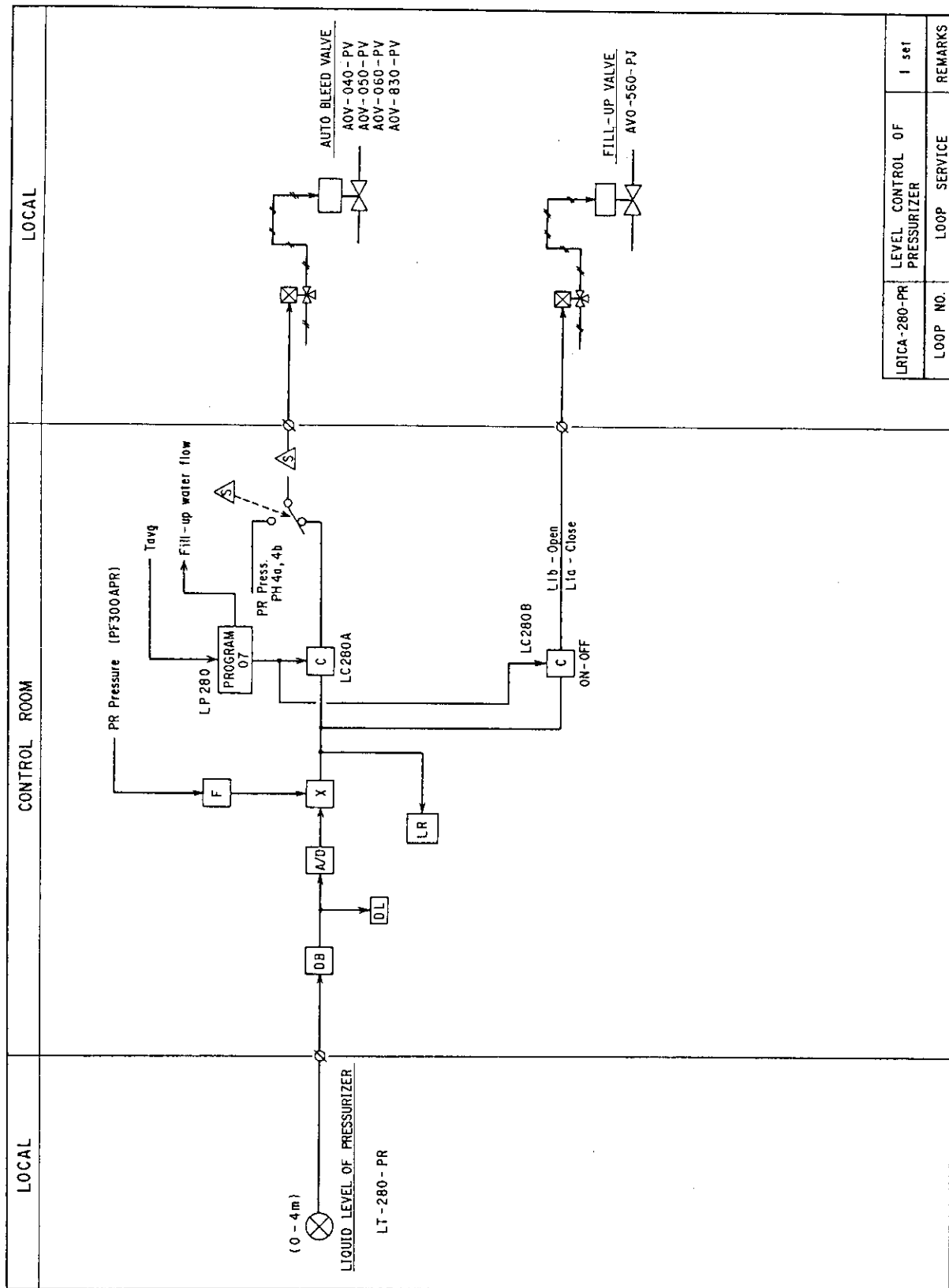
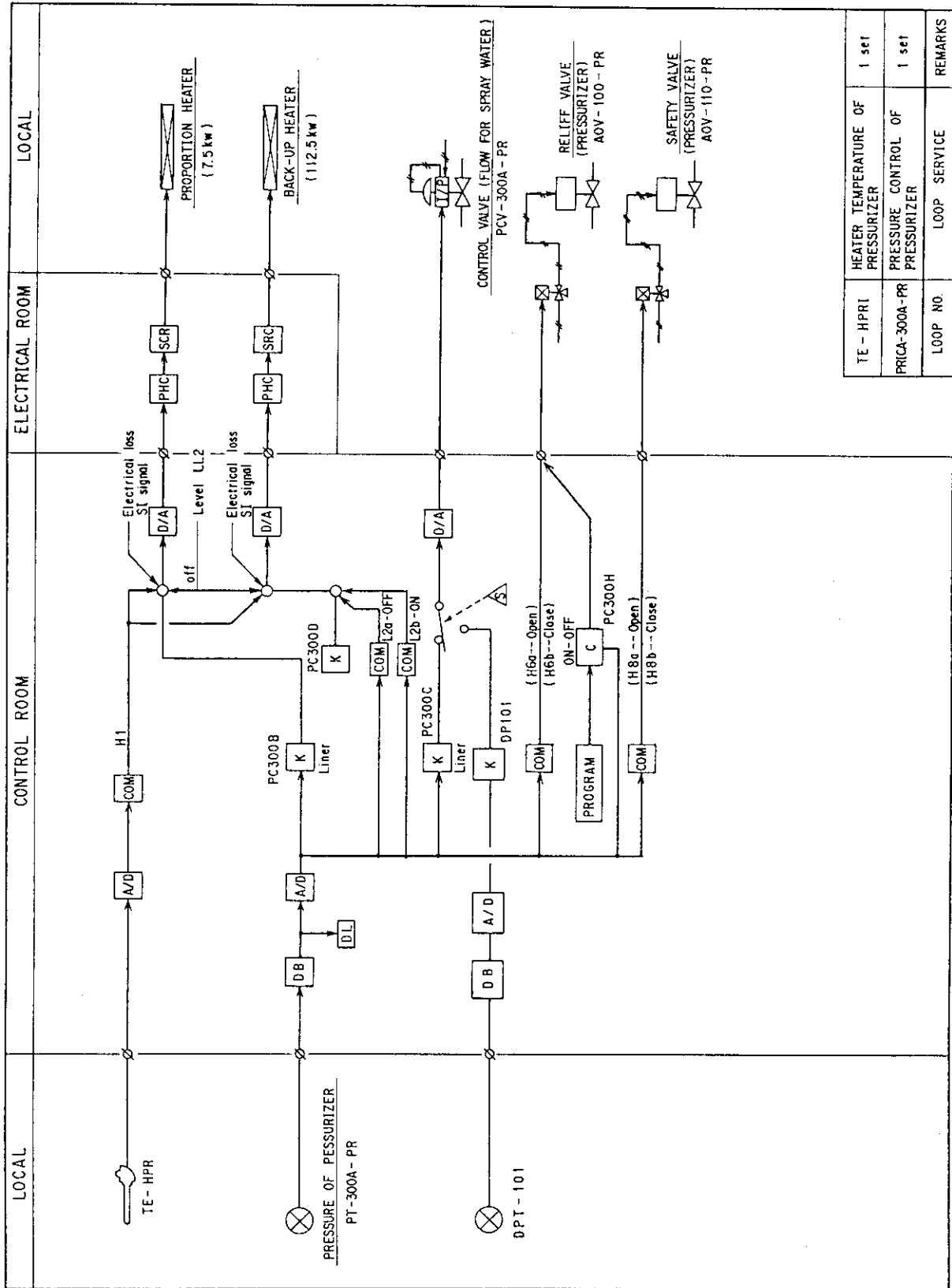


Fig. 3.37 Level control logic on pressurizer



TE - HPRI	HEATER TEMPERATURE OF PRESSURIZER	1 set
PRICA-300A-PR	PRESSURE CONTROL OF PRESSURIZER	1 set
LOOP NO.	LOOP SERVICE	REMARKS

Fig. 3.38 Pressure and temperature control logics on pressurizer

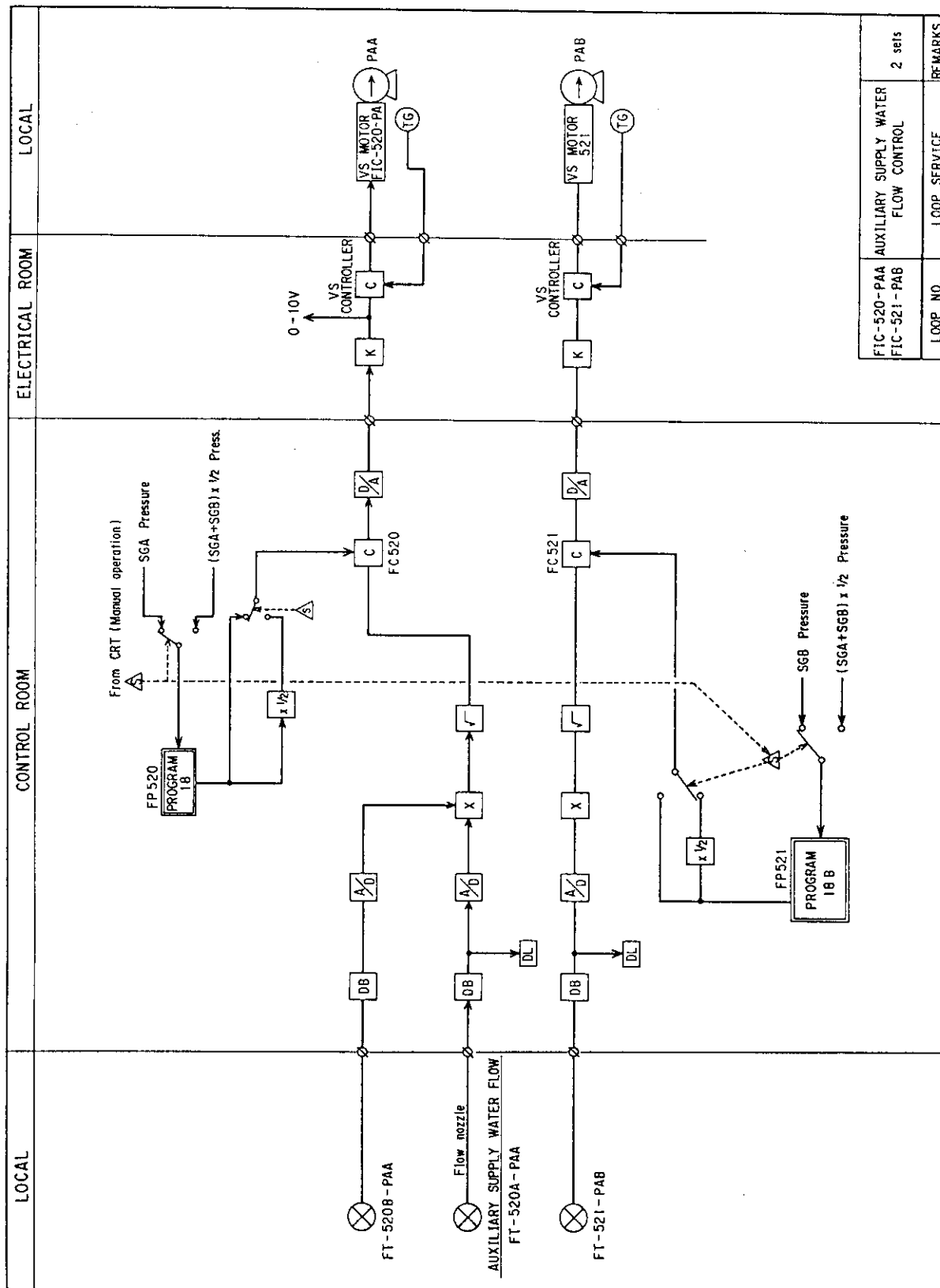


Fig. 3.39 Flow control logic on auxiliary feedwater supply system

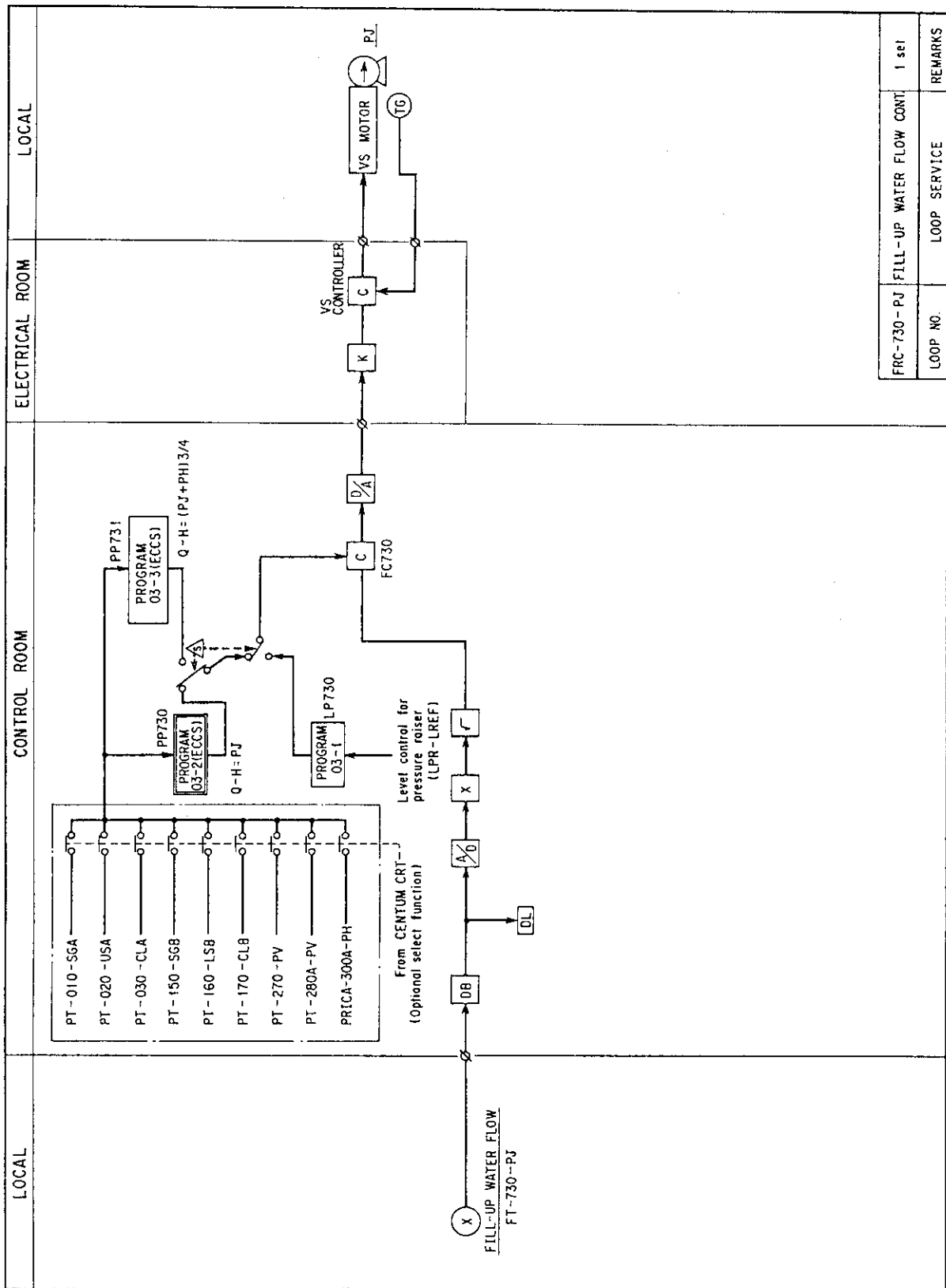
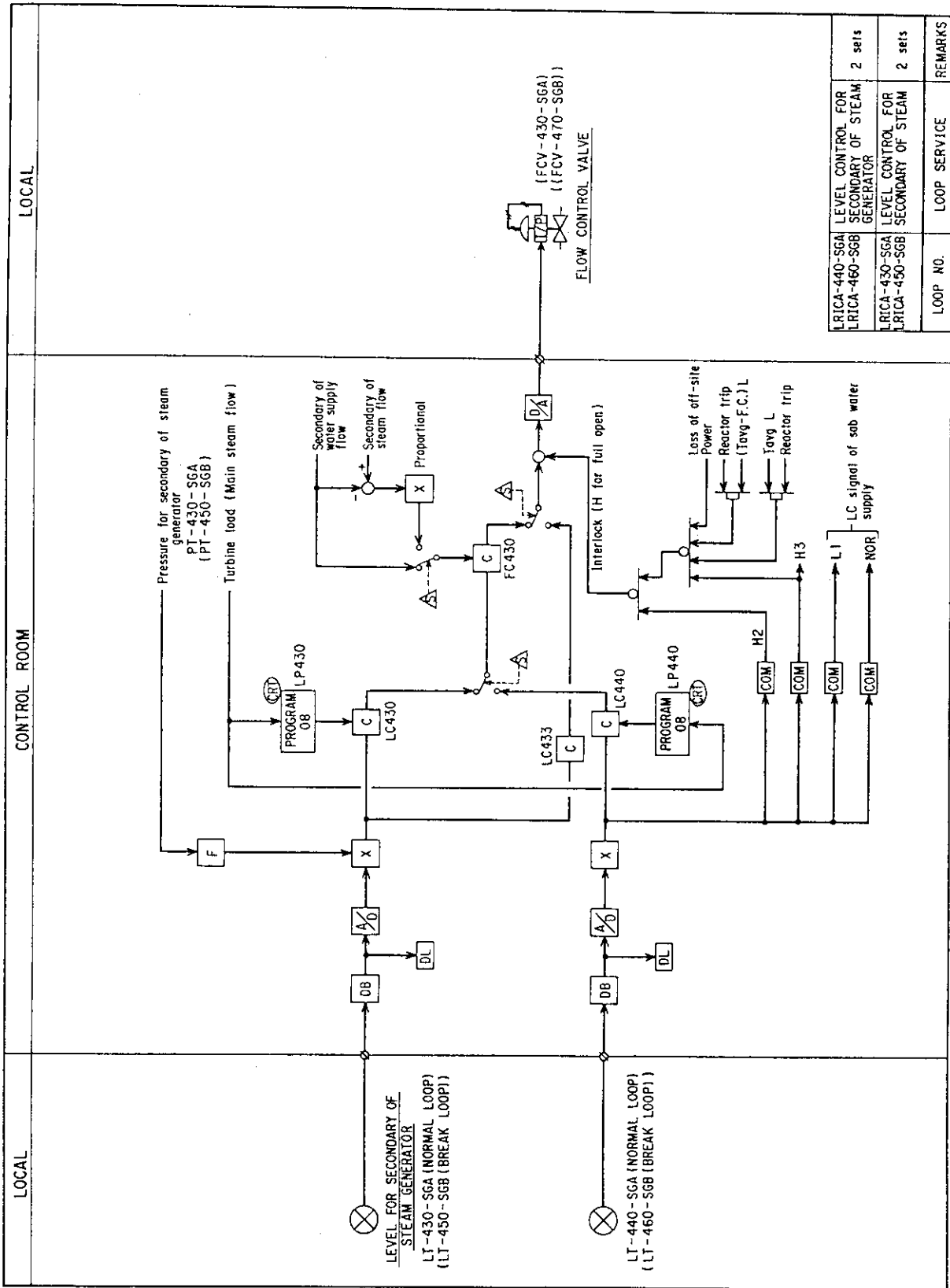


Fig. 3.40 Flow control logic on primary fill-up system by PJ pump



LOOP NO.	LOOP SERVICE	REMARKS
LRICA-440-SGA LRICA-460-SGB	LEVEL CONTROL FOR SECONDARY OF STEAM GENERATOR	2 sets
LRICA-430-SGA LRICA-450-SGB	LEVEL CONTROL FOR SECONDARY OF STEAM GENERATOR	2 sets

Fig. 3.41 Level control logic on SG secondary system

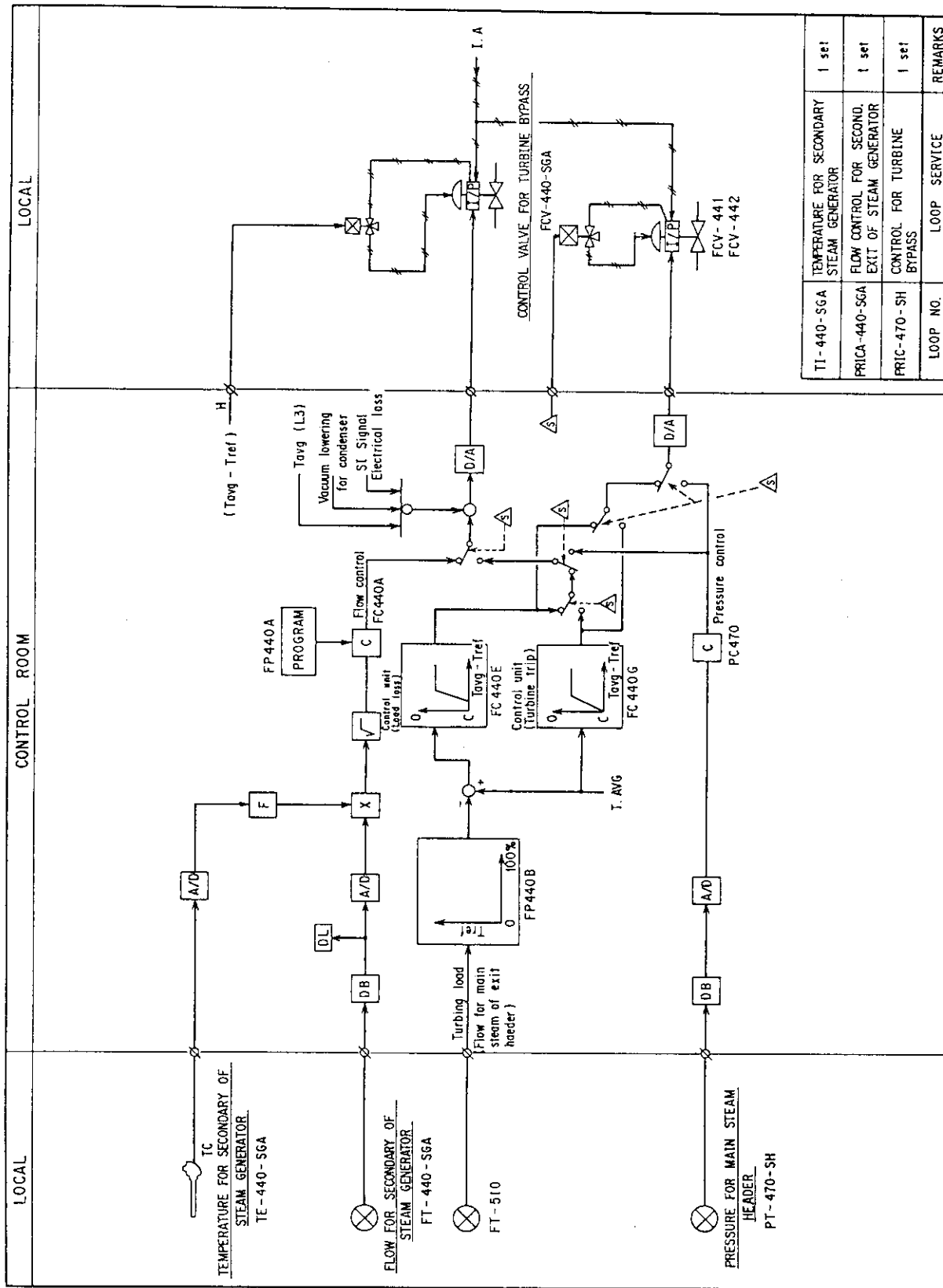


Fig. 3.42 Control logics on secondary temperature, steam flow and turbine bypass valve

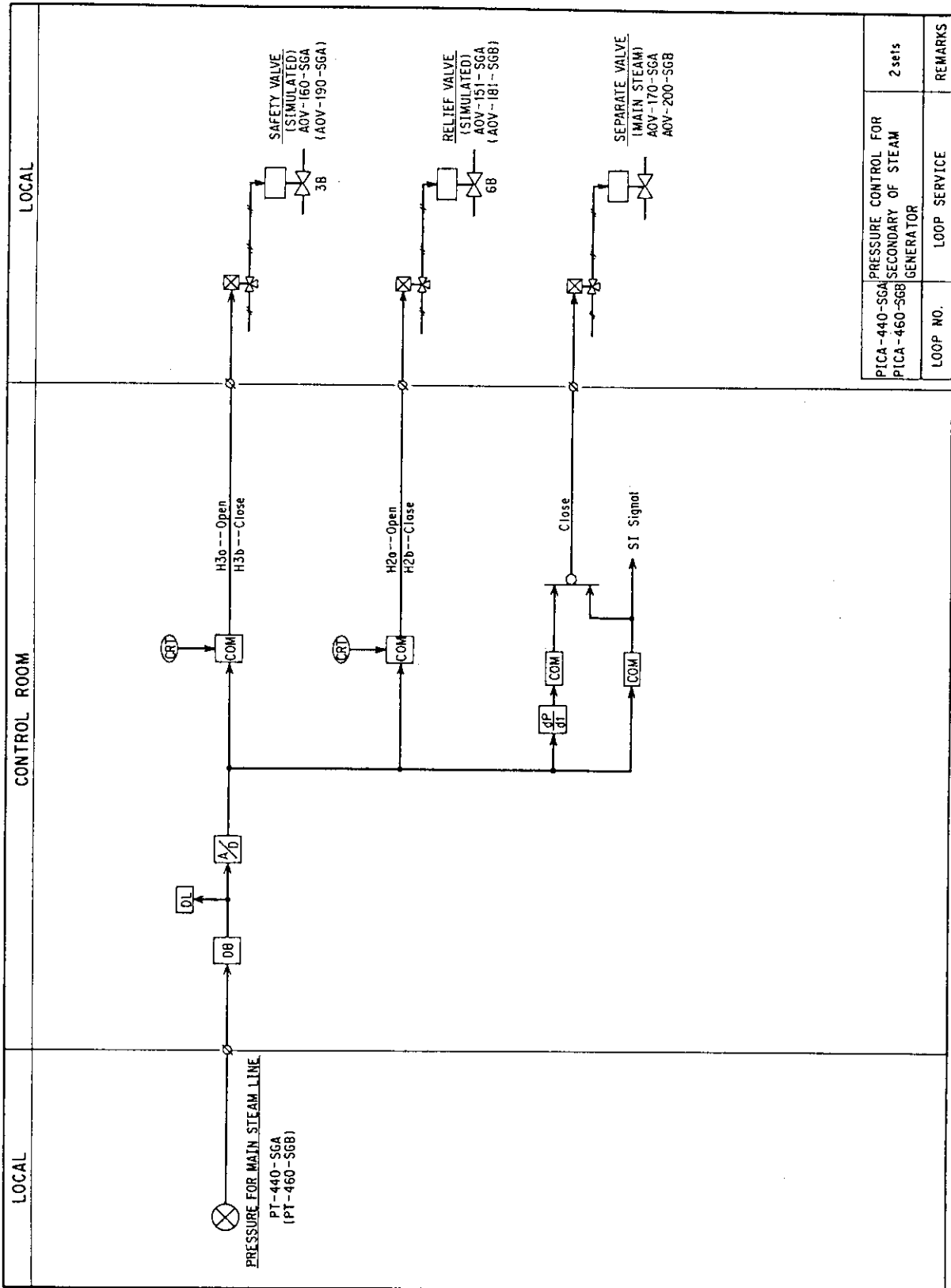
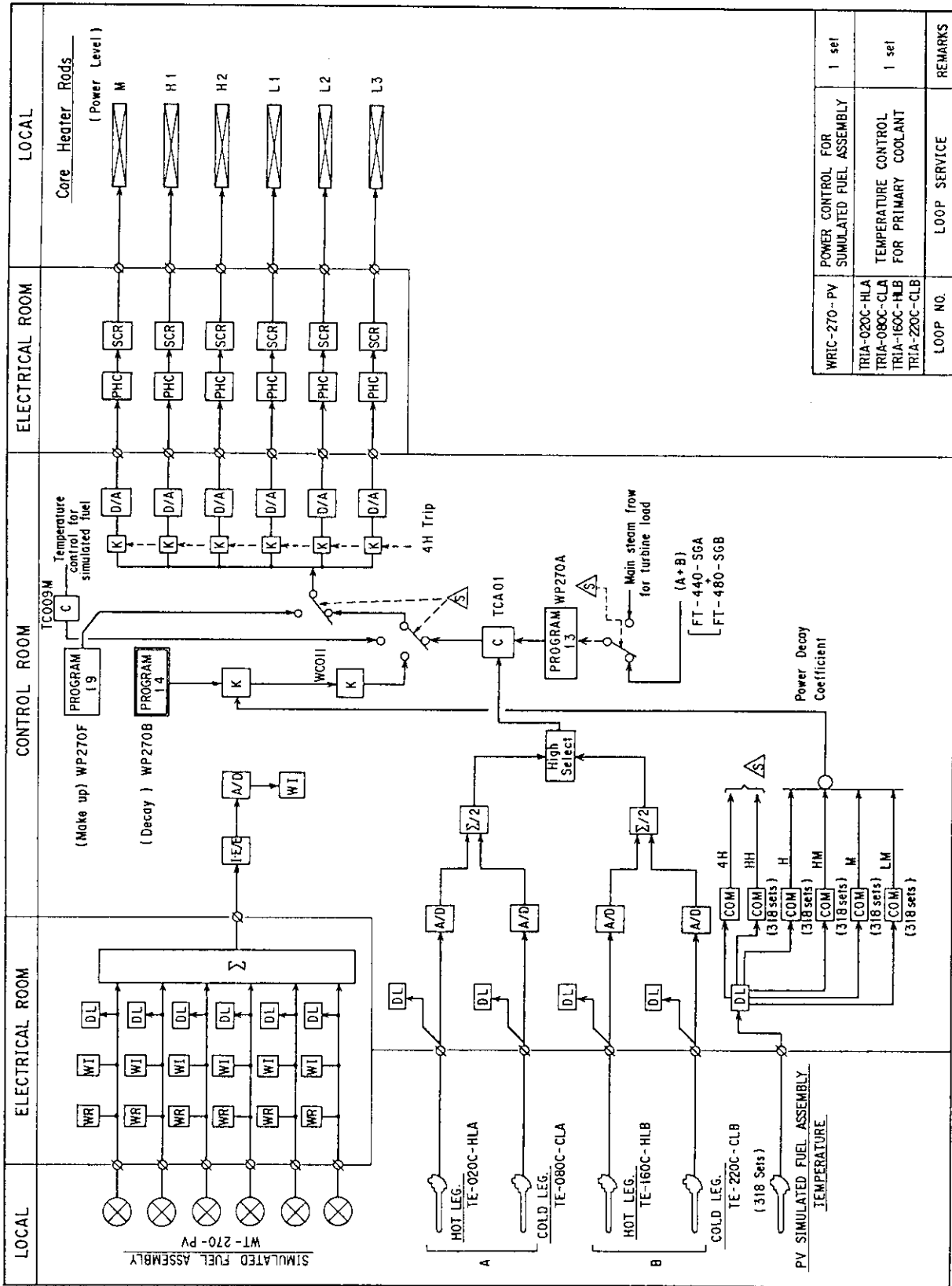
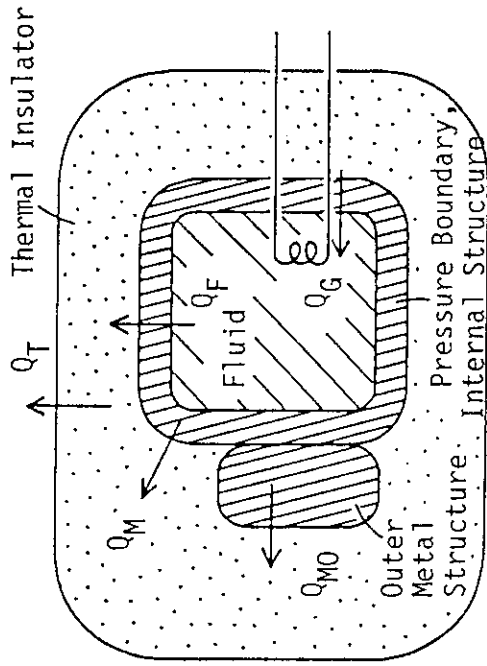


Fig. 3.43 Pressure control logics on SG secondary system



LOOP NO.	LOOP SERVICE	REMARKS
WRIC-270-PV	POWER CONTROL FOR SIMULATED FUEL ASSEMBLY	1 set
TRIA-020C-HLA	TEMPERATURE CONTROL FOR PRIMARY COOLANT	1 set
TRIA-080C-CLA		
TRIA-160C-HLB		
TRIA-220C-CLB		

Fig. 3.44 Control logics on fluid temperature and core power in primary system



$$Q_T = Q_F + Q_G + Q_M + Q_{M0}$$

Q_T : Total Energy Loss through Thermal Insulator

Q_F : Energy Loss in Fluid

Q_M : Energy Loss in Metal

Q_{M0} : Energy Loss in Outer Metal

Q_G : Energy Income from Heater or Operating Pumps

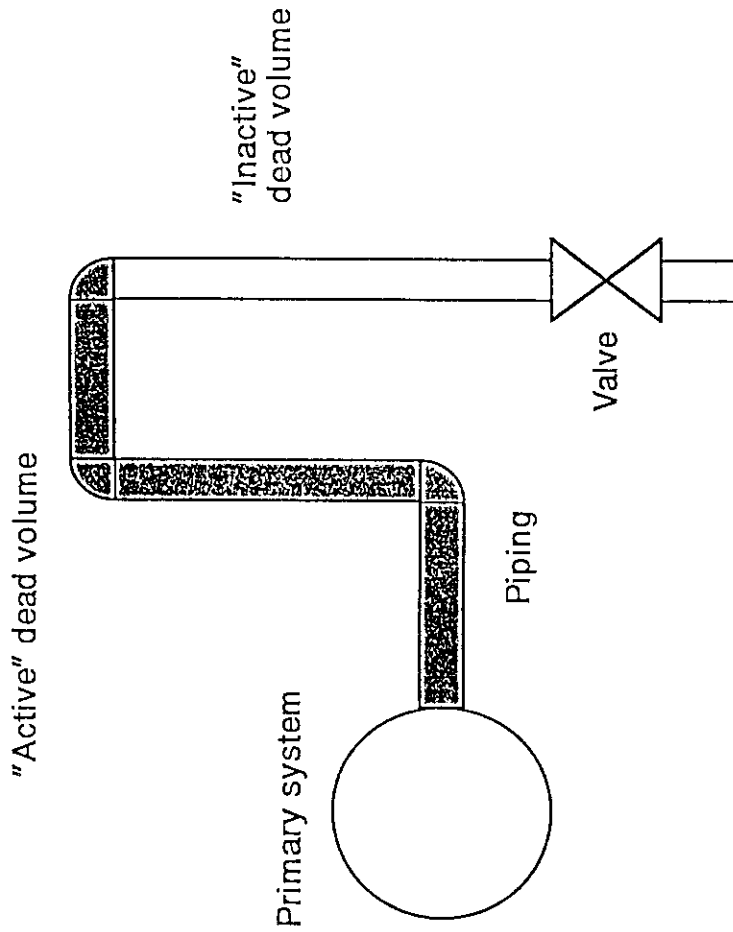
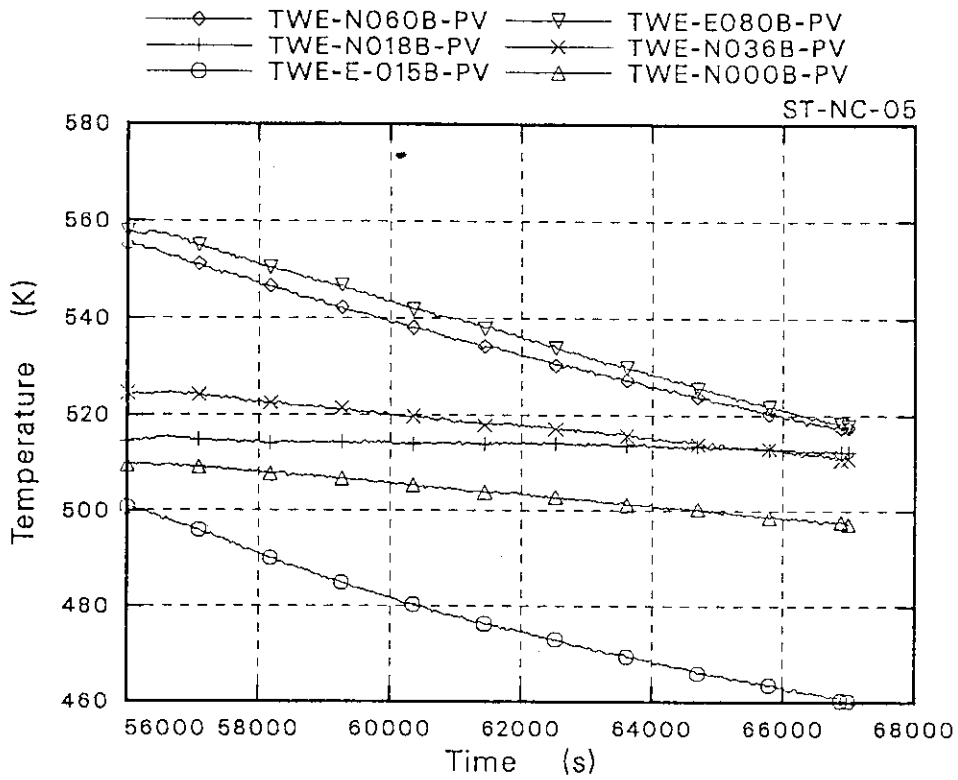
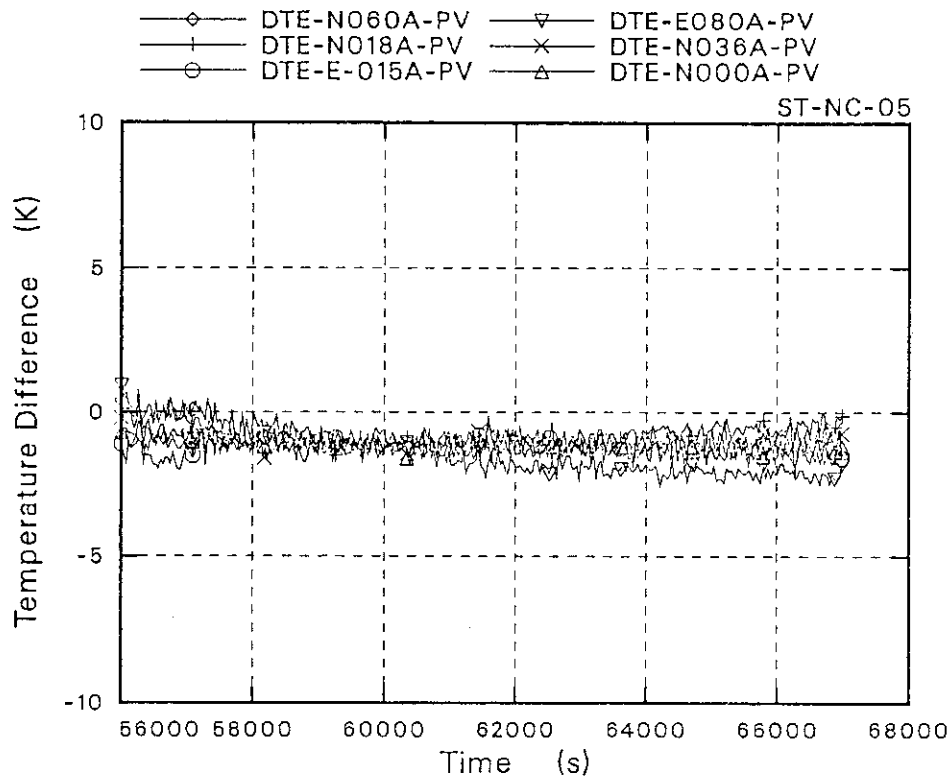


Fig. 4.1 Definition of "active" dead volume

Fig. 4.2 Definition of heat loss for each component in LSIF system



(a) Wall temperature transients at various PV locations



(b) Comparison of temperature differences across PV wall

Fig. 4.3 Wall temperature transients for second heat loss test

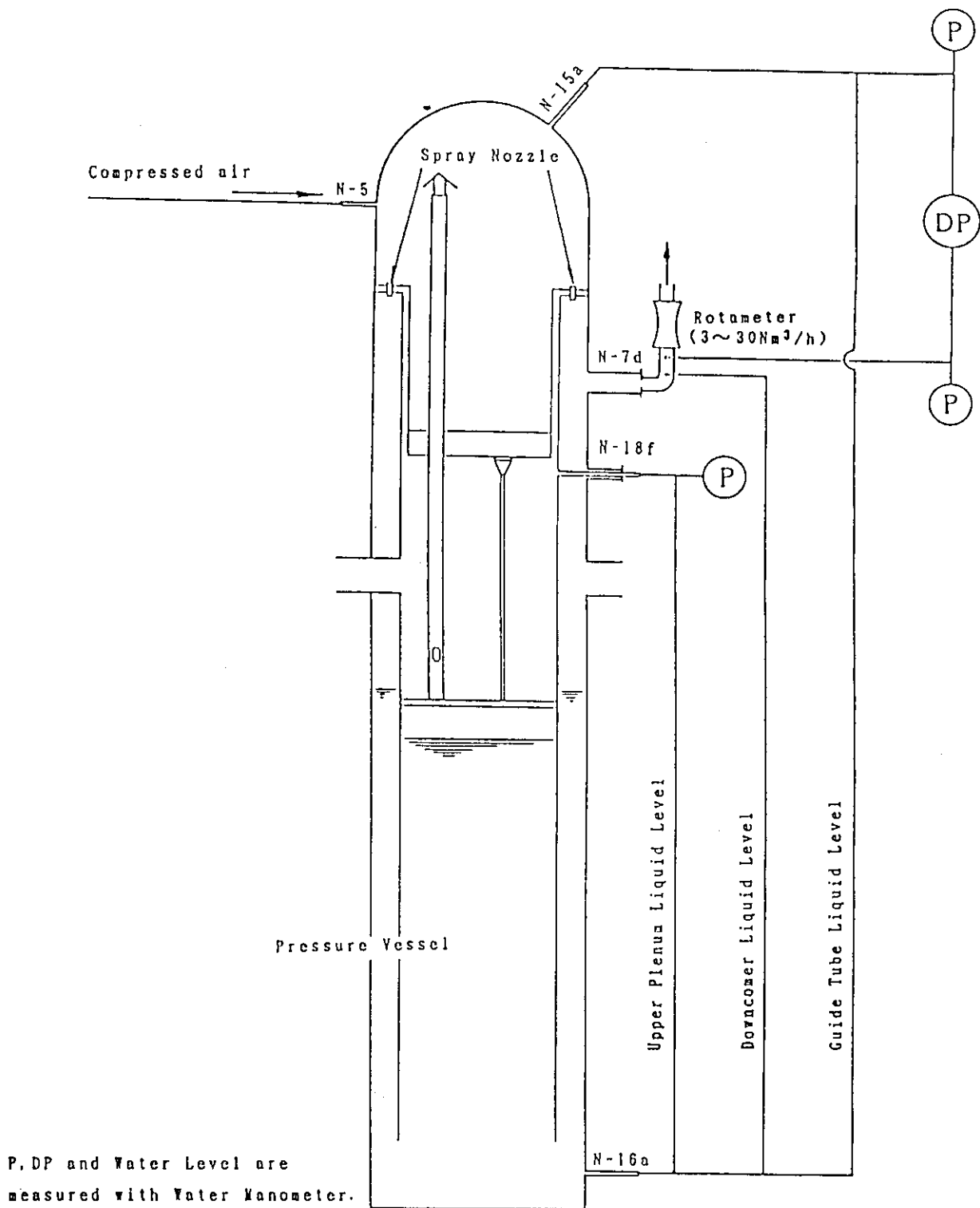
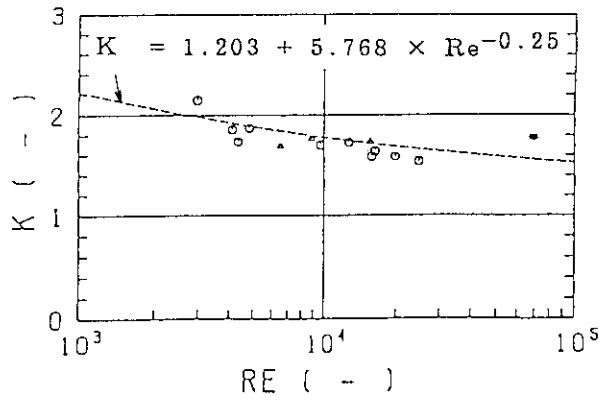
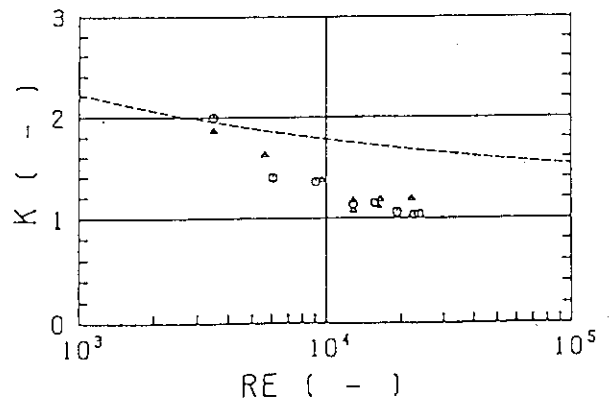


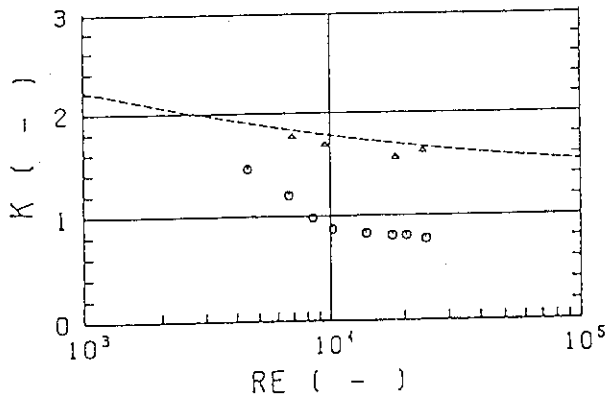
Fig. 4.4 Test apparatus for spray nozzle leakage at LSTF system



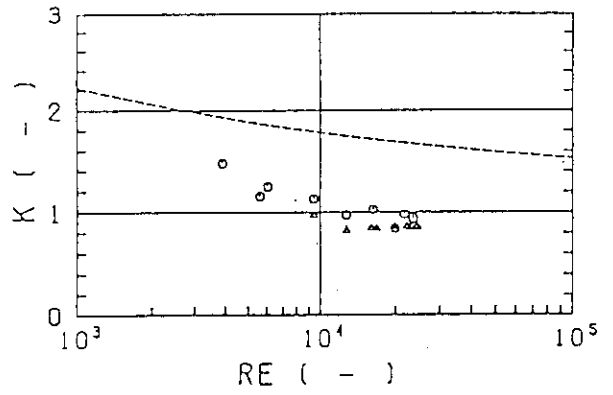
(a) Test No.1



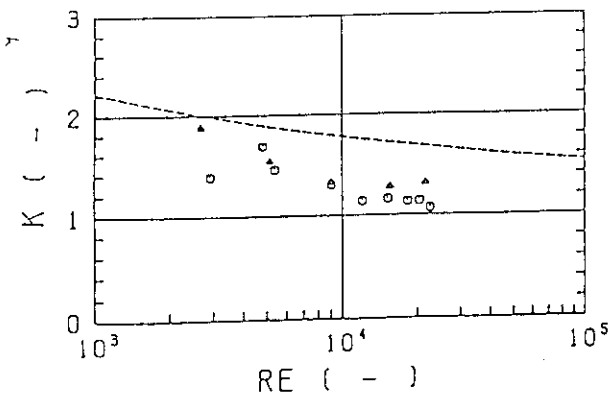
(d) Test No.8



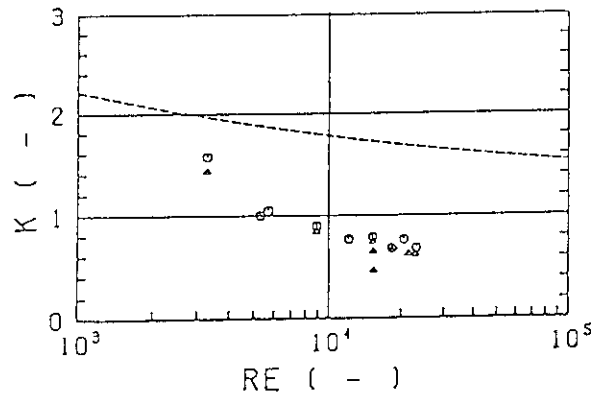
(b) Test No.4



(e) Test No.11



(c) Test No.6



(f) Test No.14

Fig. 4.5 Measured frictional loss coefficient for spray nozzle flow including effects of leakage at LSTF system

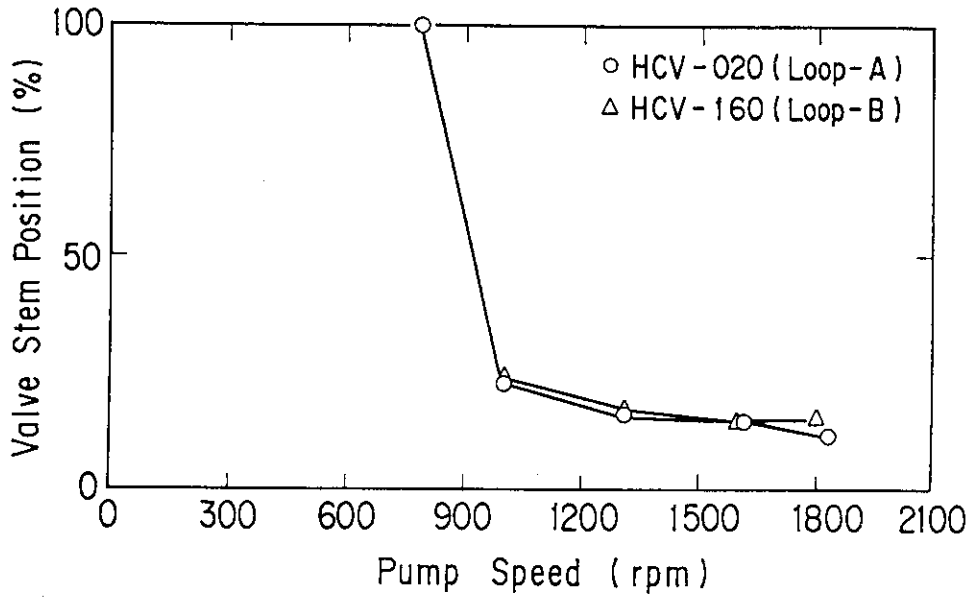


Fig. 4.6 Flow control valve opening related to PC pump speed at constant primary flow rate

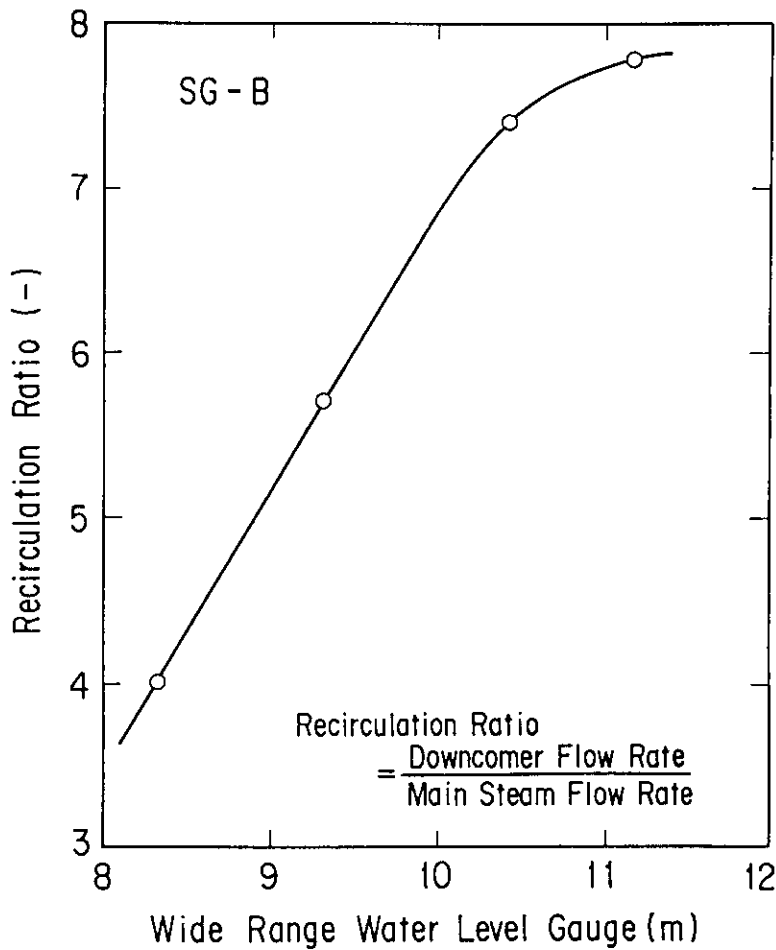
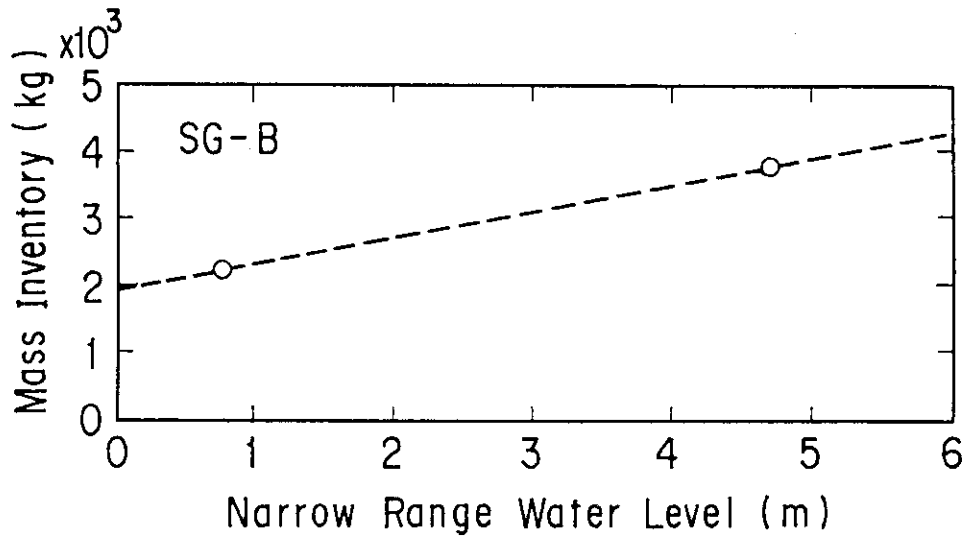
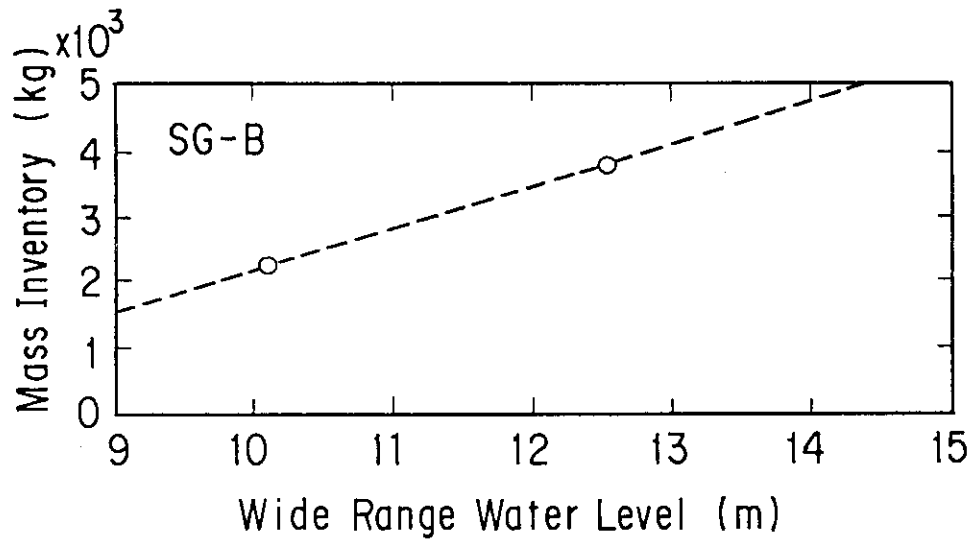


Fig. 4.7 Recirculation ratio in SG secondary system at constant core power of 10 MW

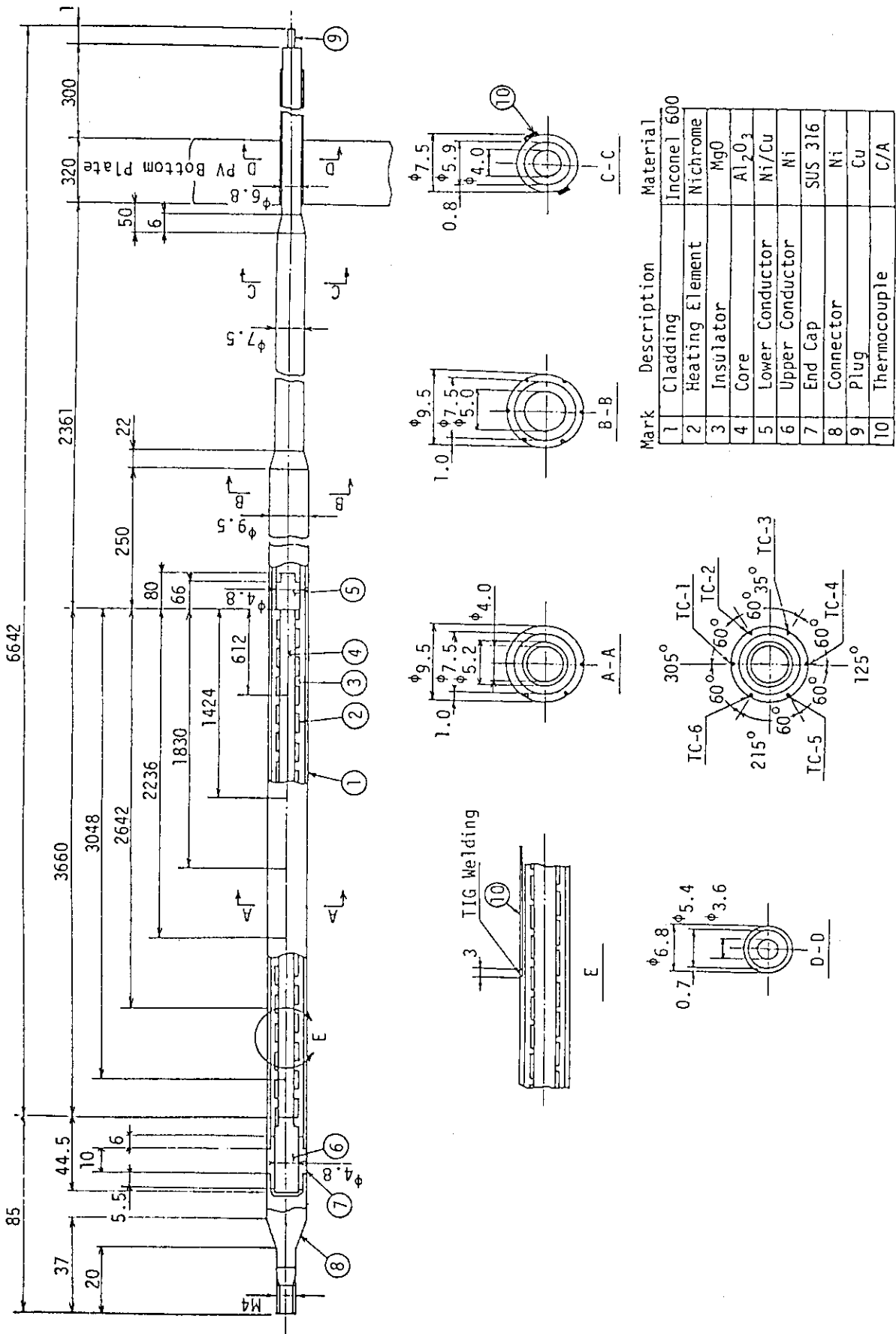


(a) Narrow level meter



(b) Wide level meter

Fig. 4.8 SG secondary fluid mass inventory related to water level



Mark	Description	Material
1	Cladding	Inconel 600
2	Heating Element	Nichrome
3	Insulator	MgO
4	Core	Al ₂ O ₃
5	Lower Conductor	Ni/Cu
6	Upper Conductor	Ni
7	End Cap	SUS 316
8	Connector	Ni
9	Plug	Cu
10	Thermocouple	C/A

Fig. 5.1 Cross-section of heater rod

Appendix A List of LSTF System Modifications with No.1 Core

Appendix A List of LSTF System Modifications with No.1 Core

Reference Date	Modification to System Hardware	Modification in Instrumentations										Reference Tests
		TE/DT	TW	FE	PE	ML	LE	DP	MF	DE	CP	
12/22/'84	Installation of Instruments	I	I	I	I	I	I	I	I	I	I	Acceptance Test
1/19/'85												1st Heat Loss Test, Steady State Tests:
3/12/'85	Removal of SG-Plenum Filler Blocks											AT-SB-01
7/18/'85				R								SB-CL-02
10/30/'85		R		I				R				SB-PR-01
12/ 4/'85	Installation of Turbine Bypass Control Valves, 1st Sealing of PV Leak Path			I								ST-NC-01
12/18/'85		R										ST-NC-02
1/23/'86			I						R			SB-CL-06
3/ 6/'86		X									X	SB-CL-07
7/10/'86	Installation of Instruments and ACC Orifice Flow Meter, 2nd Sealing of PV Leak Path	I		I	I	I	I	I	I	I	I,R	SB-CL-08
7/30/'86				R								SB-HL-01
8/28/'86		R		R							I	SB-CL-09
10/ 1/'86				R								SB-CL-10
10/21/'86					R			R				TR-LF-01
11/12/'86								R				ST-SG-03
12/17/'86								R				SB-PV-01
2/26/'87								I,R				ST-NC-04
3/30/'87	Installation of Aux. Feedwater Pump			I,R								TR-LF-02
4/21/'87	Installation of Deaeration System, Fabrication of Flush Break Orifices							R			R	SB-CL-11
6/ 9/'87	Modification to Discharge Line for Water Hammer Prevention			X								SB-PV-02
6/30/'87		R									R	SB-HL-02
7/29/'87		R		R							R	SB-CL-12
10/21/'87	Sealing of SG-Plenum Leak Path, Remote Operation on DF-Measurements	X	X	I				I I,R			R	SB-HL-03
11/19/'87	No Use of Video Probes	X	X					R				SB-CL-13
12/21/'87								I			R	SB-CL-14
3/ 2/'88	Modification to Deaeration System							R				SB-CL-16
4/26/'88		X				X		R	X			SB-CL-17
5/25/'88				R								SB-CL-18
6/29/'88	Renewal of Video Probe Window									X		SB-CL-19, 2nd Heat Loss Test
8/ 2/'88		I,R	I								I,R	

Symbols of I,R and X indicate installation, renewal or modification, and removal or elimination of instruments, respectively.

Appendix B List of Instrument Installation Information

JAERI-M 89-113

LIST OF INSTRUMENT INSTALLATION INFORMATION FILE

RUN DATE 89-06-07 PAGE 1

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	MOIIF JCA. DATE
1	TE 1	TE010A-HLA	HLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 7/23/88.	85-03-12 86-12-12 88-07-25
2	TE 2	TE010B-HLA	HLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 7/23/88.	85-03-12 86-12-12 88-07-25
3	TE 3	TE010C-HLA	HLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 7/23/88.	85-03-12 86-12-12 88-07-25
4	TE 4	TE010D-HLA	HLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 7/23/88.	85-03-12 86-12-12 88-07-25
5	TE 5	TE010E-HLA	HLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 7/23/88.	85-03-12 86-12-12 88-07-25
6	TE 6	TE020C-HLA	HLA Fluid at Pipe Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
7	TE 7	TE020D-HLA	HLA Fluid at Pipe Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
8	TE 8	TE030C-HLA	HLA Fluid at Pipe Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
9	TE 9	TE030D-HLA	HLA Fluid at Pipe Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
10	TE 10	TE040A-HLA	HLA SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Removed 3/01/86.	85-03-12 85-10-27 86-03-05
11	TE 11	TE040B-HLA	HLA SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Removed 3/01/86.	85-03-12 85-10-27 86-03-05
12	TE 12	TE040C-HLA	HLA SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Removed 3/01/86.	85-03-12 85-10-27 86-03-05
13	TE 13	TE040D-HLA	HLA SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Removed 3/01/86.	85-03-12 85-10-27 86-03-05
14	TE 14	TE040E-HLA	HLA SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Removed 3/01/86.	85-03-12 85-10-27 86-03-05
15	TE 15	TE050C-LSA	LSA Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
16	TE 16	TE070C-CLA	CLA Fluid at Pipe Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
17	TE 17	TE070D-CLA	CLA Fluid at Pipe Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
18	TE 18	TE080C-CLA	CLA Fluid at Pipe Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
19	TE 19	TE080D-CLA	CLA Fluid at Pipe Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
20	TE 20	TE090A-CLA	CLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Removed 3/01/86.	85-03-12 85-10-25 86-03-05
21	TE 21	TE090B-CLA	CLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Removed 3/01/86.	85-03-12 85-10-25 86-03-05
22	TE 22	TE090C-CLA	CLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Removed 3/01/86.	85-03-12 85-10-25 86-03-05
23	TE 23	TE090D-CLA	CLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Removed 3/01/86.	85-03-12 85-10-25 86-03-05
24	TE 24	TE090E-CLA	CLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Removed 3/01/86.	85-03-12 85-10-25 86-03-05
25	TE 25	TE100-HLA	HLA-CLA Average	1. Installed 3/11/85. (AT-SB-01)	85-03-12
26	TE 26	TE150A-HLB	HLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/23/88.	85-03-12 85-10-27 88-07-25
27	TE 27	TE150B-HLB	HLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/23/88.	85-03-12 85-10-27 88-07-25
28	TE 28	TE150C-HLB	HLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/23/88.	85-03-12 85-10-27 88-07-25
29	TE 29	TE150D-HLB	HLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/23/88.	85-03-12 85-10-27 88-07-25
30	TE 30	TE150E-HLB	HLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/23/88.	85-03-12 85-10-27 88-07-25
31	TE 31	TE160C-HLB	HLB Fluid at Pipe Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
32	TE 32	TE160D-HLB	HLB Fluid at Pipe Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
33	TE 33	TE170C-HLB	HLB Fluid at Pipe Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
34	TE 34	TE170D-HLB	HLB Fluid at Pipe Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
35	TE 35	TE180A-HLB	HLB SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 6/19/87.	85-03-12 86-12-12 87-06-25
36	TE 36	TE180B-HLB	HLB SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 6/19/87.	85-03-12 86-12-12 87-06-25
37	TE 37	TE180C-HLB	HLB SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 6/19/87.	85-03-12 86-12-12 87-06-25
38	TE 38	TE180D-HLB	HLB SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 6/19/87.	85-03-12 86-12-12 87-06-25
39	TE 39	TE180E-HLB	HLB SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 6/19/87.	85-03-12 86-12-12 87-06-25
40	TE 40	TE190C-LSB	LSB Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
41	TE 41	TE210C-CLB	CLB Fluid at Pipe Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
42	TE 42	TE210D-CLB	CLB Fluid at Pipe Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
43	TE 43	TE220C-CLB	CLB Fluid at Pipe Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
44	TE 44	TE220D-CLB	CLB Fluid at Pipe Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
45	TE 45	TE230A-CLB	CLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/02/87.	85-03-12 85-10-27 87-07-05
46	TE 46	TE230B-CLB	CLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/02/87.	85-03-12 85-10-27 87-07-05

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NO.1 CA. DATE
47	TE 47	TE230C-CLB	CLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/02/87.	85-03-12 85-10-27 87-07-05
48	TE 48	TE230D-CLD	CLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/02/87.	85-03-12 85-10-27 87-07-05
49	TE 49	TE230E-CLB	CLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/02/87.	85-03-12 85-10-27 87-07-05
50	TE 50	TE240-HLB	HLB-CLB Average	1. Installed 3/11/85. (AT-SB-01)	85-03-12
51	TE 51	TE270C-PR	PR Spray Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
52	TE 52	TE280C-PR	PR Surge Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
53	TE 53	TE290-PR	PR Relief Valve	1. Installed 3/11/85. (AT-SB-01)	85-03-12
54	TE 54	TE300-PR	PR Safety Valve	1. Installed 3/11/85. (AT-SB-01)	85-03-12
55	TE 55	TE430-SGA	SGA Feedwater Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
56	TE 56	TE440-SGA	SGA Main Steam Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
57	TE 57	TE450-SGA	SGA Relief Valve Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
58	TE 58	TE460-SGA	SGA Safety Valve Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
59	TE 59	TE470-SGB	SGB Feedwater Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
60	TE 60	TE480-SGB	SGB Main Steam Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
61	TE 61	TE490-SGB	SGB Relief Valve Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
62	TE 62	TE500-SGB	SGB Safety Valve Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
63	TE 63	TE510-SH	MSL Steam Header	1. Installed 3/11/85. (AT-SB-01)	85-03-12
64	TE 64	TE520-JC	JC Hot Water	1. Installed 3/11/85. (AT-SB-01)	85-03-12
65	TE 65	TE530-JC	JC Suction Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
66	TE 66	TE540-JC	JC Spray Water	1. Installed 3/11/85. (AT-SB-01)	85-03-12
67	TE 67	TE550-JC	JC Steam Vent Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
68	TE 68	TE431-SGA	SGA Downcomer A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
69	TE 69	TE432-SGA	SGA Downcomer B	1. Installed 3/11/85. (AT-SB-01)	85-03-12
70	TE 70	TE433-SGA	SGA Downcomer C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
71	TE 71	TE434-SGA	SGA Downcomer D	1. Installed 3/11/85. (AT-SB-01)	85-03-12
72	TE 72	TE471-SGB	SGB Downcomer A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
73	TE 73	TE472-SGB	SGB Downcomer B	1. Installed 3/11/85. (AT-SB-01)	85-03-12
74	TE 74	TE473-SGB	SGB Downcomer C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
75	TE 75	TE474-SGB	SGB Downcomer D	1. Installed 3/11/85. (AT-SB-01)	85-03-12
76	TE 76	TE560C-BU	BU No.1 Upstream Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
77	TE 77	TE560D-BU	BU No.1 Upstream Bottom	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 2/01/89.	85-03-12 89-02-03
78	TE 78	TE570C-BU	BU No.1 Downstream Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
79	TE 79	TE570D-BU	BU No.1 Downstream Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
80	TE 80	TE580C-BU	BU No.2 Upstream Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
81	TE 81	TE580D-BU	BU No.2 Upstream Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
82	TE 82	TE590C-BU	BU No.2 Downstream Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
83	TE 83	TE590D-BU	BU No.2 Downstream Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
84	TE 84	TE600-ST	ST Inlet Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
85	TE 85	TE610-ST	ST Bottom Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
86	TE 86	TE620-ST	ST Middle Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
87	TE 87	TE630-ST	ST Top Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
88	TE 88	TE640-ST	ST Spray Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
89	TE 89	TE650-ACC	Cold Acc Tank Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
90	TE 90	TE660-ACC	Cold Acc Tank Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
91	TE 91	TE670-ACC	Cold Acc Line to CLA	1. Installed 3/11/85. (AT-SB-01)	85-03-12
92	TE 92	TE680-ACC	Cold Acc Line to CLB	1. Installed 3/11/85. (AT-SB-01)	85-03-12
93	TE 93	TE690-ACH	Hot Acc Tank Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
94	TE 94	TE700-ACH	Hot Acc Tank Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
95	TE 95	TE710-ACH	Hot Acc Line to HLA	1. Installed 3/11/85. (AT-SB-01)	85-03-12
96	TE 96	TE720-ACH	Hot Acc Line to HLB	1. Installed 3/11/85. (AT-SB-01)	85-03-12
97	TE 97	TE730-HLA	HLA ECCS Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
98	TE 98	TE740-LSA	LSA ECCS Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
99	TE 99	TE750-CLA	CLA ECCS Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
100	TE 100	TE760-HLB	HLB ECCS Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
101	TE 101	TE770-LSB	LSB ECCS Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
102	TE 102	TE780-CLB	CLB ECCS Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
103	TE 103	TE790-PV	PV Bottom ECCS Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
104	TE 104	TE800-PV	PV Top ECCS Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
105	TE 105	TE810-PR	Charging Flow to CLA	1. Installed 3/11/85. (AT-SB-01)	85-03-12
106	TE 106	TE820-PL	RHR Inlet Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
107	TE 107	TE830-PL	RHR Outlet Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
108	TE 108	TE840-PI	RHR Injection Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
109	TE 109	TE850-PL	RHR Sec. Inlet Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
110	TE 110	TE860-PL	RHR Sec. Upper Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
111	TE 111	TE870-PL	RHR Sec. Steam Vent Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
112	TE 112	TE880-RWST	RWST Tank Lower Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
113	TE 113	TE890-RWST	RWST Tank Middle Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
114	TE 114	TE900-EX	M2 Gas Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
115	TE 115	IE-E066F-PV	Upper Head Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
116	TE 116	IE-W066F-PV	Upper Head Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
117	TE 117	IE-E075F-PV	Upper Head Middle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
118	TE 118	IE-W075F-PV	Upper Head Middle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
119	TE 119	IE-E081F-PV	Upper Head Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
120	TE 120	IE-W081F-PV	Upper Head Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
121	TE 121	IE-E080H-PV	CR Guide Tube Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
122	TE 122	IE-W080H-PV	CR Guide Tube Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
123	TE 123	IE-E049F-PV	Upper Plenum Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
124	TE 124	IE-W049F-PV	Upper Plenum Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
125	TE 125	IE-E055F-PV	Upper Plenum Middle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
126	TE 126	IE-W055F-PV	Upper Plenum Middle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
127	TE 127	IE-E060F-PV	Upper Plenum Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
128	TE 128	IE-W060F-PV	Upper Plenum Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
129	TE 129	IE-IN038-B09-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
130	TE 130	IE-IN038-B11-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
131	TE 131	IE-IN038-R01-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
132	TE 132	IE-IN038-R03-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
133	TE 133	IE-IN038-R05-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
134	TE 134	IE-IN038-R07-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
135	TE 135	IE-IN038-R21-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
136	TE 136	IE-IN038-R23-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
137	TE 137	IE-IN038-R02-UCP	Below Upper core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
138	TE 138	IE-IN038-R06-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
139	TE 139	IE-IN038-B14-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12

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LIST OF INSTRUMENT INSTALLATION INFORMATION FILE

RUN DATE 89-06-07 PAGE 3

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT W/D/Y (RUN NO.)	NOTIFICA. DATE
140	TE 140	TE-1N038-B15-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
141	TE 141	TE-1N038-B18-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
142	TE 142	TE-1N038-B19-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
143	TE 143	TE-1N038-B10-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
144	TE 144	TE-1N038-B12-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
145	TE 145	TE-1N038-B04-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
146	TE 146	TE-1N038-B08-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
147	TE 147	TE-1N038-B22-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
148	TE 148	TE-1N038-B24-UCP	Below Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
149	TE 149	TE-EX040-B09-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
150	TE 150	TE-EX040-B11-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
151	TE 151	TE-EX040-B01-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
152	TE 152	TE-EX040-B03-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
153	TE 153	TE-EX040-B05-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
154	TE 154	TE-EX040-B07-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
155	TE 155	TE-EX040-B21-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
156	TE 156	TE-EX040-B23-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
157	TE 157	TE-EX040-B02-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
158	TE 158	TE-EX040-B06-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
159	TE 159	TE-EX040-B14-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
160	TE 160	TE-EX040-B15-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
161	TE 161	TE-EX040-B18-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
162	TE 162	TE-EX040-B19-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
163	TE 163	TE-EX040-B10-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
164	TE 164	TE-EX040-B12-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
165	TE 165	TE-EX040-B04-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
166	TE 166	TE-EX040-B08-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
167	TE 167	TE-EX040-B22-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
168	TE 168	TE-EX040-B24-UCP	Above Upper Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
169	TE 169	TE-IN-002B02-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
170	TE 170	TE-IN-002B03-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
171	TE 171	TE-IN-002B06-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
172	TE 172	TE-IN-002B07-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
173	TE 173	TE-IN-002B09-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
174	TE 174	TE-IN-002B11-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
175	TE 175	TE-IN-002B14-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
176	TE 176	TE-IN-002B16-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
177	TE 177	TE-IN-002B18-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
178	TE 178	TE-IN-002B20-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
179	TE 179	TE-IN-002B21-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
180	TE 180	TE-IN-002B23-LCPP	Below Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
181	TE 181	TE-EX-000B02-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
182	TE 182	TE-EX-000B03-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
183	TE 183	TE-EX-000B06-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
184	TE 184	TE-EX-000B07-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
185	TE 185	TE-EX-000B09-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
186	TE 186	TE-EX-000B11-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
187	TE 187	TE-EX-000B16-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
188	TE 188	TE-EX-000B18-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
189	TE 189	TE-EX-000B19-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
190	TE 190	TE-EX-000B20-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
191	TE 191	TE-EX-000B21-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
192	TE 192	TE-EX-000B23-LCPP	Above Lower Core Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
193	TE 193	TE-W000C-DC	Downcomer EL.0.0m,North	1. Installed 3/11/85. (AT-SB-01)	85-03-12
194	TE 194	TE-S000C-DC	Downcomer EL.0.0m,South	1. Installed 3/11/85. (AT-SB-01)	85-03-12
195	TE 195	TE-E000C-DC	Downcomer EL.0.0m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
196	TE 196	TE-W000C-DC	Downcomer EL.0.0m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
197	TE 197	TE-W018C-DC	Downcomer EL.1.8m,North	1. Installed 3/11/85. (AT-SB-01)	85-03-12
198	TE 198	TE-S018C-DC	Downcomer EL.1.8m,South	1. Installed 3/11/85. (AT-SB-01)	85-03-12
199	TE 199	TE-E018C-DC	Downcomer EL.1.8m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
200	TE 200	TE-W018C-DC	Downcomer EL.1.8m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
201	TE 201	TE-W036C-DC	Downcomer EL.3.6m,North	1. Installed 3/11/85. (AT-SB-01)	85-03-12
202	TE 202	TE-S036C-DC	Downcomer EL.3.6m,South	1. Installed 3/11/85. (AT-SB-01)	85-03-12
203	TE 203	TE-E036C-DC	Downcomer EL.3.6m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
204	TE 204	TE-W036C-DC	Downcomer EL.3.6m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
205	TE 205	TE-W060C-DC	Downcomer EL.6.0m,North	1. Installed 3/11/85. (AT-SB-01)	85-03-12
206	TE 206	TE-S060C-DC	Downcomer EL.6.0m,South	1. Installed 3/11/85. (AT-SB-01)	85-03-12
207	TE 207	TE-E060C-DC	Downcomer EL.6.0m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
208	TE 208	TE-W060C-DC	Downcomer EL.6.0m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
209	TE 209	TE-N055C-DC	Downcomer EL.5.5m,North	1. Installed 3/11/85. (AT-SB-01)	85-03-12
210	TE 210	TE-S055C-DC	Downcomer EL.5.5m,South	1. Installed 3/11/85. (AT-SB-01)	85-03-12
211	TE 211	TE-C-021-LP	Lower Plenum EL.-2.1m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
212	TE 212	TE-C-018-LP	Lower Plenum EL.-1.8m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
213	TE 213	TE-C-015-LP	Lower Plenum EL.-1.5m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
214	TE 214	TE-C-012-LP	Lower Plenum EL.-1.2m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
215	TE 215	TE-C-009-LP	Lower Plenum EL.-0.9m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
216	TE 216	TE-C-006-LP	Lower Plenum EL.-0.6m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
217	TE 217	TE-C-005-LP	Lower Plenum EL.-0.5m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
218	TE 218	TE-C-003-LP	Lower Plenum EL.-0.3m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
219	TE 219	TE-B18621	B18 Rod(6,2) Pos.1,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
220	TE 220	TE-B18622	B18 Rod(6,2) Pos.2,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
221	TE 221	TE-B18623	B18 Rod(6,2) Pos.3,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
222	TE 222	TE-B18624	B18 Rod(6,2) Pos.4,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
223	TE 223	TE-B18625	B18 Rod(6,2) Pos.5,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
224	TE 224	TE-B18626	B18 Rod(6,2) Pos.6,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
225	TE 225	TE-B18627	B18 Rod(6,2) Pos.7,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
226	TE 226	TE-B18628	B18 Rod(6,2) Pos.8,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
227	TE 227	TE-B18629	B18 Rod(6,2) Pos.9,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
228	TE 228	TE-B01221	B01 Rod(2,2) Pos.1,Fluid	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
229	TE 229	TE-B01223	B01 Rod(2,2) Pos.3,Fluid	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
230	TE 230	TE-B01225	B01 Rod(2,2) Pos.5,Fluid	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
231	TE 231	TE-B01226	B01 Rod(2,2) Pos.6,Fluid	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
232	TE 232	TE-B01227	B01 Rod(2,2) Pos.7,Fluid	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
233	TE 233	TE-B01229	B01 Rod(2,2) Pos.9,Fluid	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09

SEQ NO	FUNC ID	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICA. DATE
298	TE 298	TE-B23227	B23 Rod(2,2) Pos.7,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
299	TE 299	TE-B23229	B23 Rod(2,2) Pos.9,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
300	TE 300	TE-B20661	B20 Rod(6,6) Pos.1,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
301	TE 301	TE-B20662	B20 Rod(6,6) Pos.2,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
302	TE 302	TE-B20663	B20 Rod(6,6) Pos.3,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
303	TE 303	TE-B20664	B20 Rod(6,6) Pos.4,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
304	TE 304	TE-B20665	B20 Rod(6,6) Pos.5,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
305	TE 305	TE-B20666	B20 Rod(6,6) Pos.6,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
306	TE 306	TE-B20667	B20 Rod(6,6) Pos.7,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
307	TE 307	TE-B20668	B20 Rod(6,6) Pos.8,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
308	TE 308	TE-B20669	B20 Rod(6,6) Pos.9,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
309	TE 309	TE-B22661	B22 Rod(6,6) Pos.1,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
310	TE 310	TE-B22662	B22 Rod(6,6) Pos.2,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
311	TE 311	TE-B22663	B22 Rod(6,6) Pos.3,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
312	TE 312	TE-B22664	B22 Rod(6,6) Pos.4,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
313	TE 313	TE-B22665	B22 Rod(6,6) Pos.5,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
314	TE 314	TE-B22666	B22 Rod(6,6) Pos.6,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
315	TE 315	TE-B22667	B22 Rod(6,6) Pos.7,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
316	TE 316	TE-B22668	B22 Rod(6,6) Pos.8,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
317	TE 317	TE-B22669	B22 Rod(6,6) Pos.9,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
318	TE 318	TE-B24621	B24 Rod(6,2) Pos.1,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
319	TE 319	TE-B24623	B24 Rod(6,2) Pos.3,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
320	TE 320	TE-B24625	B24 Rod(6,2) Pos.5,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
321	TE 321	TE-B24626	B24 Rod(6,2) Pos.6,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
322	TE 322	TE-B24627	B24 Rod(6,2) Pos.7,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
323	TE 323	TE-B24629	B24 Rod(6,2) Pos.9,Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
324	TE 324	TE-IN0641-SGA	SGA Inlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
325	TE 325	TE-IN0642-SGA	SGA Inlet Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Location changed 8/11/86. 3. Returned to former location 2/10/89.	85-03-12 86-08-20 89-02-12
326	TE 326	TE-IN0643-SGA	SGA Inlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
327	TE 327	TE-EX0641-SGA	SGA Outlet Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	85-03-12 88-12-10
328	TE 328	TE-EX0642-SGA	SGA Outlet Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	85-03-12 88-12-10
329	TE 329	TE-EX0643-SGA	SGA Outlet Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	85-03-12 88-12-10
330	TE 330	TE-IN0861-SGA	SGA U-Tube(1,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
331	TE 331	TE-IN0862-SGA	SGA U-Tube(2,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
332	TE 332	TE-IN0863-SGA	SGA U-Tube(3,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
333	TE 333	TE-IN0864-SGA	SGA U-Tube(4,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
334	TE 334	TE-IN0865-SGA	SGA U-Tube(5,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
335	TE 335	TE-IN0866-SGA	SGA U-Tube(6,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
336	TE 336	TE-EX0861-SGA	SGA U-Tube(1,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
337	TE 337	TE-EX0862-SGA	SGA U-Tube(2,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
338	TE 338	TE-EX0863-SGA	SGA U-Tube(3,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
339	TE 339	TE-EX0864-SGA	SGA U-Tube(4,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
340	TE 340	TE-EX0865-SGA	SGA U-Tube(5,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
341	TE 341	TE-EX0866-SGA	SGA U-Tube(6,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
342	TE 342	TE-IN0931-SGA	SGA U-Tube(1,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
343	TE 343	TE-IN0932-SGA	SGA U-Tube(2,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
344	TE 344	TE-IN0933-SGA	SGA U-Tube(3,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01) 2. Correct the wrong thermocouple connection between two locations TE-IN0933-SGA and TE-IN0932-SGA 10/29/85. (SB-PR-01)	85-03-12 85-11-01
345	TE 345	TE-IN0934-SGA	SGA U-Tube(4,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
346	TE 346	TE-IN0935-SGA	SGA U-Tube(5,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
347	TE 347	TE-IN0936-SGA	SGA U-Tube(6,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
348	TE 348	TE-IN0991-SGA	SGA U-Tube(1,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
349	TE 349	TE-EX0991-SGA	SGA U-Tube(1,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
350	TE 350	TE-IN0992-SGA	SGA U-Tube(2,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
351	TE 351	TE-EX0992-SGA	SGA U-Tube(2,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
352	TE 352	TE-IN0993-SGA	SGA U-Tube(3,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01) 2. Correct the wrong thermocouple connection between two locations TE-IN0993-SGA and TE-IN0933-SGA 10/29/85. (SB-PR-01)	85-03-12 85-11-01
353	TE 353	TE-EX0993-SGA	SGA U-Tube(3,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
354	TE 354	TE-IN0994-SGA	SGA U-Tube(4,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
355	TE 355	TE-EX0994-SGA	SGA U-Tube(4,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
356	TE 356	TE-IN0995-SGA	SGA U-Tube(5,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
357	TE 357	TE-EX0995-SGA	SGA U-Tube(5,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
358	TE 358	TE-IN0996-SGA	SGA U-Tube(6,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
359	TE 359	TE-EX0996-SGA	SGA U-Tube(6,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
360	TE 360	TE-IN1051-SGA	SGA U-Tube(1,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
361	TE 361	TE-IN1052-SGA	SGA U-Tube(2,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
362	TE 362	TE-IN1053-SGA	SGA U-Tube(3,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
363	TE 363	TE-IN1054-SGA	SGA U-Tube(4,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
364	TE 364	TE-IN1055-SGA	SGA U-Tube(5,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
365	TE 365	TE-IN1056-SGA	SGA U-Tube(6,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
366	TE 366	TE-IN1121-SGA	SGA U-Tube(1,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
367	TE 367	TE-EX1121-SGA	SGA U-Tube(1,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
368	TE 368	TE-IN1122-SGA	SGA U-Tube(2,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
369	TE 369	TE-EX1122-SGA	SGA U-Tube(2,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
370	TE 370	TE-IN1123-SGA	SGA U-Tube(3,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
371	TE 371	TE-EX1123-SGA	SGA U-Tube(3,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
372	TE 372	TE-IN1124-SGA	SGA U-Tube(4,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
373	TE 373	TE-EX1124-SGA	SGA U-Tube(4,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
374	TE 374	TE-IN1125-SGA	SGA U-Tube(5,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
375	TE 375	TE-EX1125-SGA	SGA U-Tube(5,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
376	TE 376	TE-IN1126-SGA	SGA U-Tube(6,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
377	TE 377	TE-EX1126-SGA	SGA U-Tube(6,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
378	TE 378	TE-IN1251-SGA	SGA U-Tube(1,IN) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
379	TE 379	TE-EX1251-SGA	SGA U-Tube(1,EX) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
380	TE 380	TE-IN1252-SGA	SGA U-Tube(2,IN) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
381	TE 381	TE-EX1252-SGA	SGA U-Tube(2,EX) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
382	TE 382	TE-IN1253-SGA	SGA U-Tube(3,IN) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
383	TE 383	TE-EX1253-SGA	SGA U-Tube(3,EX) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
384	TE 384	TE-IN1254-SGA	SGA U-Tube(4,IN) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
385	TE 385	TE-EX1254-SGA	SGA U-Tube(4,EX) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
386	TE 386	TE-IN1255-SGA	SGA U-Tube(5,IN) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
387	TE 387	TE-EX1255-SGA	SGA U-Tube(5,EX) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
388	TE 388	TE-IN1256-SGA	SGA U-Tube(6,IN) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT W/D/Y (RUN NO.)	NOTIFICA- DATE
389	TE 389	TE-EX1256-SGA	SGA U-Tube(6,EX) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
390	TE 390	TE-IN1371-SGA	SGA U-Tube(1,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
391	TE 391	TE-EX1371-SGA	SGA U-Tube(1,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
392	TE 392	TE-IN1372-SGA	SGA U-Tube(2,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
393	TE 393	TE-EX1372-SGA	SGA U-Tube(2,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
394	TE 394	TE-IN1373-SGA	SGA U-Tube(3,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
395	TE 395	TE-EX1373-SGA	SGA U-Tube(3,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
396	TE 396	TE-IN1374-SGA	SGA U-Tube(4,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
397	TE 397	TE-EX1374-SGA	SGA U-Tube(4,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
398	TE 398	TE-IN1375-SGA	SGA U-Tube(5,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
399	TE 399	TE-EX1375-SGA	SGA U-Tube(5,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
400	TE 400	TE-IN1376-SGA	SGA U-Tube(6,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
401	TE 401	TE-EX1376-SGA	SGA U-Tube(6,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
402	TE 402	TE-IN1501-SGA	SGA U-Tube(1,IN) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
403	TE 403	TE-EX1501-SGA	SGA U-Tube(1,EX) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
404	TE 404	TE-IN1502-SGA	SGA U-Tube(2,IN) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
405	TE 405	TE-EX1502-SGA	SGA U-Tube(2,EX) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
406	TE 406	TE-IN1503-SGA	SGA U-Tube(3,IN) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
407	TE 407	TE-EX1503-SGA	SGA U-Tube(3,EX) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
408	TE 408	TE-IN1504-SGA	SGA U-Tube(4,IN) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
409	TE 409	TE-EX1504-SGA	SGA U-Tube(4,EX) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
410	TE 410	TE-IN1505-SGA	SGA U-Tube(5,IN) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
411	TE 411	TE-EX1505-SGA	SGA U-Tube(5,EX) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
412	TE 412	TE-IN1506-SGA	SGA U-Tube(6,IN) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
413	TE 413	TE-EX1506-SGA	SGA U-Tube(6,EX) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
414	TE 414	TE-IN1632-SGA	SGA U-Tube(2,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
415	TE 415	TE-EX1632-SGA	SGA U-Tube(2,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
416	TE 416	TE-IN1633-SGA	SGA U-Tube(3,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
417	TE 417	TE-EX1633-SGA	SGA U-Tube(3,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
418	TE 418	TE-IN1634-SGA	SGA U-Tube(4,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
419	TE 419	TE-EX1634-SGA	SGA U-Tube(4,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
420	TE 420	TE-IN1635-SGA	SGA U-Tube(5,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
421	TE 421	TE-EX1635-SGA	SGA U-Tube(5,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
422	TE 422	TE-IN1701-SGA	SGA U-Tube(1,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
423	TE 423	TE-IN1706-SGA	SGA U-Tube(6,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
424	TE 424	TE-IN1782-SGA	SGA U-Tube(2,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
425	TE 425	TE-IN1785-SGA	SGA U-Tube(5,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
426	TE 426	TE-IN1863-SGA	SGA U-Tube(3,IN) Pos.11	1. Installed 3/11/85. (AT-SB-01)	85-03-12
427	TE 427	TE-IN1864-SGA	SGA U-Tube(4,IN) Pos.11	1. Installed 3/11/85. (AT-SB-01)	85-03-12
428	TE 428	TE-223D-SGA	SGA Steam Dome	1. Installed 3/11/85. (AT-SB-01)	85-03-12
429	TE 429	TE-086C-SGA	SGA Boiling Section Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
430	TE 430	TE-099C-SGA	SGA Boiling Section Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
431	TE 431	TE-112C-SGA	SGA Boiling Section Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
432	TE 432	TE-125C-SGA	SGA Boiling Section Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
433	TE 433	TE-137C-SGA	SGA Boiling Section Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
434	TE 434	TE-150C-SGA	SGA Boiling Section Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
435	TE 435	TE-163C-SGA	SGA Boiling Section Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
436	TE 436	TE-178C-SGA	SGA Boiling Section Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
437	TE 437	TE-192F-SGA	SGA Boiling Section	1. Installed 3/11/85. (AT-SB-01)	85-03-12
438	TE 438	TE-208F-SGA	SGA Separator	1. Installed 3/11/85. (AT-SB-01)	85-03-12
439	TE 439	TE-192C-SGA	SGA Downcomer	1. Installed 3/11/85. (AT-SB-01)	85-03-12
440	TE 440	TE-208C-SGA	SGA Downcomer	1. Installed 3/11/85. (AT-SB-01)	85-03-12
441	TE 441	TE-223C-SGA	SGA Steam Dome	1. Installed 3/11/85. (AT-SB-01)	85-03-12
442	TE 442	TE-245C-SGA	SGA Steam Dome	1. Installed 3/11/85. (AT-SB-01)	85-03-12
443	TE 443	TE-IN0641-SGB	SGB Inlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
444	TE 444	TE-IN0642-SGB	SGB Inlet Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Location changed 8/11/86. 3. Returned to former location 2/10/89.	85-03-12 86-08-20 89-02-12
445	TE 445	TE-IN0643-SGB	SGB Inlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
446	TE 446	TE-EX0641-SGB	SGB Outlet Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	85-03-12 88-12-09
447	TE 447	TE-EX0642-SGB	SGB Outlet Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	85-03-12 88-12-09
448	TE 448	TE-EX0643-SGB	SGB Outlet Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	85-03-12 88-12-09
449	TE 449	TE-IN0861-SGB	SGB U-Tube(1,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
450	TE 450	TE-IN0862-SGB	SGB U-Tube(2,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
451	TE 451	TE-IN0863-SGB	SGB U-Tube(3,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
452	TE 452	TE-IN0864-SGB	SGB U-Tube(4,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
453	TE 453	TE-IN0865-SGB	SGB U-Tube(5,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
454	TE 454	TE-IN0866-SGB	SGB U-Tube(6,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
455	TE 455	TE-EX0861-SGB	SGB U-Tube(1,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
456	TE 456	TE-EX0862-SGB	SGB U-Tube(2,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
457	TE 457	TE-EX0863-SGB	SGB U-Tube(3,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
458	TE 458	TE-EX0864-SGB	SGB U-Tube(4,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
459	TE 459	TE-EX0865-SGB	SGB U-Tube(5,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
460	TE 460	TE-EX0866-SGB	SGB U-Tube(6,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
461	TE 461	TE-IN0931-SGB	SGB U-Tube(1,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
462	TE 462	TE-IN0932-SGB	SGB U-Tube(2,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
463	TE 463	TE-IN0933-SGB	SGB U-Tube(3,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
464	TE 464	TE-IN0934-SGB	SGB U-Tube(4,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
465	TE 465	TE-IN0935-SGB	SGB U-Tube(5,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
466	TE 466	TE-IN0936-SGB	SGB U-Tube(6,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
467	TE 467	TE-IN0991-SGB	SGB U-Tube(1,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
468	TE 468	TE-EX0991-SGB	SGB U-Tube(1,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
469	TE 469	TE-IN0992-SGB	SGB U-Tube(2,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
470	TE 470	TE-EX0992-SGB	SGB U-Tube(2,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
471	TE 471	TE-IN0993-SGB	SGB U-Tube(3,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
472	TE 472	TE-EX0993-SGB	SGB U-Tube(3,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
473	TE 473	TE-IN0994-SGB	SGB U-Tube(4,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
474	TE 474	TE-EX0994-SGB	SGB U-Tube(4,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
475	TE 475	TE-IN0995-SGB	SGB U-Tube(5,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
476	TE 476	TE-EX0995-SGB	SGB U-Tube(5,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
477	TE 477	TE-IN0996-SGB	SGB U-Tube(6,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
478	TE 478	TE-EX0996-SGB	SGB U-Tube(6,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
479	TE 479	TE-IN1051-SGB	SGB U-Tube(1,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
480	TE 480	TE-IN1052-SGB	SGB U-Tube(2,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
481	TE 481	TE-IN1053-SGB	SGB U-Tube(3,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
482	TE 482	TE-IN1054-SGB	SGB U-Tube(4,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
483	TE 483	TE-IN1055-SGB	SGB U-Tube(5,IN) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12

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SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT	M/O/Y	(CRUM NO.)	NOTICE DATE
484	TE 484	TE-IN1056-SGB	SGB U-Tube(6,IN) Pos.4	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
485	TE 485	TE-IN1121-SGB	SGB U-Tube(1,IN) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
486	TE 486	TE-EX1121-SGB	SGB U-Tube(1,EX) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
487	TE 487	TE-IN1122-SGB	SGB U-Tube(2,IN) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
488	TE 488	TE-EX1122-SGB	SGB U-Tube(2,EX) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
489	TE 489	TE-IN1123-SGB	SGB U-Tube(3,IN) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
490	TE 490	TE-EX1123-SGB	SGB U-Tube(3,EX) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
491	TE 491	TE-IN1124-SGB	SGB U-Tube(4,IN) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
492	TE 492	TE-EX1124-SGB	SGB U-Tube(4,EX) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
493	TE 493	TE-IN1125-SGB	SGB U-Tube(5,IN) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
494	TE 494	TE-EX1125-SGB	SGB U-Tube(5,EX) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
495	TE 495	TE-IN1126-SGB	SGB U-Tube(6,IN) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
496	TE 496	TE-EX1126-SGB	SGB U-Tube(6,EX) Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
497	TE 497	TE-IN1251-SGB	SGB U-Tube(1,IN) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
498	TE 498	TE-EX1251-SGB	SGB U-Tube(1,EX) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
499	TE 499	TE-IN1252-SGB	SGB U-Tube(2,IN) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
500	TE 500	TE-EX1252-SGB	SGB U-Tube(2,EX) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
501	TE 501	TE-IN1253-SGB	SGB U-Tube(3,IN) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
502	TE 502	TE-EX1253-SGB	SGB U-Tube(3,EX) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
503	TE 503	TE-IN1254-SGB	SGB U-Tube(4,IN) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
504	TE 504	TE-EX1254-SGB	SGB U-Tube(4,EX) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
505	TE 505	TE-IN1255-SGB	SGB U-Tube(5,IN) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
506	TE 506	TE-EX1255-SGB	SGB U-Tube(5,EX) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
507	TE 507	TE-IN1256-SGB	SGB U-Tube(6,IN) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
508	TE 508	TE-EX1256-SGB	SGB U-Tube(6,EX) Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
509	TE 509	TE-IN1371-SGB	SGB U-Tube(1,IN) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
510	TE 510	TE-EX1371-SGB	SGB U-Tube(1,EX) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
511	TE 511	TE-IN1372-SGB	SGB U-Tube(2,IN) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
512	TE 512	TE-EX1372-SGB	SGB U-Tube(2,EX) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
513	TE 513	TE-IN1373-SGB	SGB U-Tube(3,IN) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
514	TE 514	TE-EX1373-SGB	SGB U-Tube(3,EX) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
515	TE 515	TE-IN1374-SGB	SGB U-Tube(4,IN) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
516	TE 516	TE-EX1374-SGB	SGB U-Tube(4,EX) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
517	TE 517	TE-IN1375-SGB	SGB U-Tube(5,IN) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
518	TE 518	TE-EX1375-SGB	SGB U-Tube(5,EX) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
519	TE 519	TE-IN1376-SGB	SGB U-Tube(6,IN) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
520	TE 520	TE-EX1376-SGB	SGB U-Tube(6,EX) Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
521	TE 521	TE-IN1501-SGB	SGB U-Tube(1,IN) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
522	TE 522	TE-EX1501-SGB	SGB U-Tube(1,EX) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
523	TE 523	TE-IN1502-SGB	SGB U-Tube(2,IN) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
524	TE 524	TE-EX1502-SGB	SGB U-Tube(2,EX) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
525	TE 525	TE-IN1503-SGB	SGB U-Tube(3,IN) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
526	TE 526	TE-EX1503-SGB	SGB U-Tube(3,EX) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
527	TE 527	TE-IN1504-SGB	SGB U-Tube(4,IN) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
528	TE 528	TE-EX1504-SGB	SGB U-Tube(4,EX) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
529	TE 529	TE-IN1505-SGB	SGB U-Tube(5,IN) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
530	TE 530	TE-EX1505-SGB	SGB U-Tube(5,EX) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
531	TE 531	TE-IN1506-SGB	SGB U-Tube(6,IN) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
532	TE 532	TE-EX1506-SGB	SGB U-Tube(6,EX) Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
533	TE 533	TE-IN1632-SGB	SGB U-Tube(2,IN) Pos.9	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
534	TE 534	TE-EX1632-SGB	SGB U-Tube(2,EX) Pos.9	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
535	TE 535	TE-IN1633-SGB	SGB U-Tube(3,IN) Pos.9	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
536	TE 536	TE-EX1633-SGB	SGB U-Tube(3,EX) Pos.9	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
537	TE 537	TE-IN1634-SGB	SGB U-Tube(4,IN) Pos.9	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
538	TE 538	TE-EX1634-SGB	SGB U-Tube(4,EX) Pos.9	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
539	TE 539	TE-IN1635-SGB	SGB U-Tube(5,IN) Pos.9	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
540	TE 540	TE-EX1635-SGB	SGB U-Tube(5,EX) Pos.9	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
541	TE 541	TE-IN1701-SGB	SGB U-Tube(1,IN) Pos.10	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
542	TE 542	TE-EX1706-SGB	SGB U-Tube(6,IN) Pos.10	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
543	TE 543	TE-IN1782-SGB	SGB U-Tube(2,IN) Pos.10	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
544	TE 544	TE-IN1785-SGB	SGB U-Tube(5,IN) Pos.10	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
545	TE 545	TE-IN1863-SGB	SGB U-Tube(3,IN) Pos.11	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
546	TE 546	TE-IN1864-SGB	SGB U-Tube(4,IN) Pos.11	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
547	TE 547	TE-223D-SGD	SGB Steam Dome	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
548	TE 548	TE-086C-SGD	SGB Boiling Section Pos.1	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
549	TE 549	TE-099C-SGD	SGB Boiling Section Pos.3	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
550	TE 550	TE-112C-SGD	SGB Boiling Section Pos.5	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
551	TE 551	TE-125C-SGD	SGB Boiling Section Pos.6	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
552	TE 552	TE-137C-SGD	SGB Boiling Section Pos.7	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
553	TE 553	TE-150C-SGD	SGB Boiling Section Pos.8	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
554	TE 554	TE-163C-SGD	SGB Boiling Section Pos.9	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
555	TE 555	TE-178C-SGD	SGB Boiling Section Pos.10	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
556	TE 556	TE-192F-SGD	SGB Boiling Section	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
557	TE 557	TE-208F-SGD	SGB Separator	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
558	TE 558	TE-192C-SGD	SGB Downcomer	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
559	TE 559	TE-208C-SGD	SGB Downcomer	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
560	TE 560	TE-223C-SGD	SGB Steam Dome	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
561	TE 561	TE-245C-SGD	SGB Steam Dome	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
562	TE 562	TE-211C-PR	PR Fluid	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
563	TE 563	TE-194C-PR	PR Fluid	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
564	TE 564	TE-177C-PR	PR Fluid	1. Installed	3/11/85.	(AT-SB-01)	85-03-12
565	TE 565	TE-980		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
566	TE 566	TE-981		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
567	TE 567	TE-982		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
568	TE 568	TE-983		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
569	TE 569	TE-984		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
570	TE 570	TE-985		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
571	TE 571	TE-986		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
572	TE 572	TE-990		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
573	TE 573	TE-991		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
574	TE 574	TE-992		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
575	TE 575	TE-993		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
576	TE 576	TE-994		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
577	TE 577	TE-995		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
578	TE 578	TE-996		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
579	TE 579	TE-997		1. Installed	3/11/85.	(AT-SB-01)	85-03-12
580	TE 580	TE561-BU	BU No.1 Bentury	1. No data acquisition.			85-03-13
581	TE 581	TE581-BU	BU No.2 Bentury	1. No data acquisition.			85-03-13
582	TE 582	TE910-CWF	Cooling Water Tank	1. No data acquisition.			85-03-13
583	TE 583	TE671-ACC	Cold Acc Line to CLA	1. No data acquisition.			85-03-13

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOFIIICA. DATE
584	TE 584	TE672-ACC	Cold Acc Line to CLA	1. No data acquisition.	85-03-13
585	TE 585	TE681-ACC	Cold Acc Line to CLB	1. No data acquisition.	85-03-13
586	TE 586	TE682-ACC	Cold Acc Line to PV Bottom	1. No data acquisition.	85-03-13
587	TE 587	TE683-ACC	Cold Acc Line to CLB	1. No data acquisition.	85-03-13
588	TE 588	TE711-ACH	Hot Acc Line to HLA	1. No data acquisition.	85-03-13
589	TE 589	TE712-ACH	Hot Acc Line to HLA	1. No data acquisition.	85-03-13
590	TE 590	TE713-ACH	Hot Acc Line to PV Bottom	1. No data acquisition.	85-03-13
591	TE 591	TE714-ACH	Hot Acc Line to CLA	1. No data acquisition.	85-03-13
592	TE 592	TE721-ACH	Hot Acc Line to HLB	1. No data acquisition.	85-03-13
593	TE 593	TE722-ACH	Hot Acc Line to PV Top	1. No data acquisition.	85-03-13
594	TE 594	TE723-ACH	Hot Acc Line to HLB	1. No data acquisition.	85-03-13
595	TE 595	TE724-ACH	Hot Acc Line to CLB	1. No data acquisition.	85-03-13
596	TE 596	TE-177D-PR	PR Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
597	TE 597	TE-181D-PR	PR Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
598	TE 598	TE-185D-PR	PR Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
599	TE 599	TE-189D-PR	PR Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
600	TE 600	TE-192D-PR	PR Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
601	TE 601	TE-196D-PR	PR Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
602	TE 602	TE-200D-PR	PR Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
603	TE 603	TE-204D-PR	PR Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
604	TE 604	TE-207D-PR	PR Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
605	TE 605	TE-211D-PR	PR Fluid	1. Installed 3/11/85. (AT-SB-01) 2. The data of DTE-IM0992-SGA is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
606	TE 606	TE011A-HLA	HLA Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
607	TE 607	TE011B-HLA	HLA Spool Piece Side	1. Installed 3/11/85. (AT-SB-01)	85-03-12
608	TE 608	TE011C-HLA	HLA Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
609	TE 609	TE012C-HLA	HLA Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
610	TE 610	TE012D-HLA	HLA Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
611	TE 611	TE051A-LSA	LSA Spool Piece East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
612	TE 612	TE051B-LSA	LSA Spool Piece South	1. Installed 3/11/85. (AT-SB-01)	85-03-12
613	TE 613	TE051C-LSA	LSA Spool Piece West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
614	TE 614	TE051D-LSA	LSA Spool Piece North	1. Installed 3/11/85. (AT-SB-01)	85-03-12
615	TE 615	TE052-LSA	LSA Spool Piece	1. Installed 7/10/86. (SB-CL-08)	86-07-11
616	TE 616	TE071A-CLA	CLA Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
617	TE 617	TE071B-CLA	CLA Spool Piece Side	1. Installed 3/11/85. (AT-SB-01)	85-03-12
618	TE 618	TE071C-CLA	CLA Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
619	TE 619	TE072C-CLA	CLA Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
620	TE 620	TE072D-CLA	CLA Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
621	TE 621	TE151A-HLB	HLB Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
622	TE 622	TE151B-HLB	HLB Spool Piece Side	1. Installed 3/11/85. (AT-SB-01)	85-03-12
623	TE 623	TE151C-HLB	HLB Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01) 2. The data of DTE-EX0993-SGA is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
624	TE 624	TE152C-HLB	HLB Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
625	TE 625	TE152D-HLB	HLB Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
626	TE 626	TE191A-LSB	LSB Spool Piece West	1. Installed 3/11/85. (AT-SB-01) 2. The data of DTE-IM1121-SGA is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
627	TE 627	TE191B-LSB	LSB Spool Piece North	1. Installed 3/11/85. (AT-SB-01) 2. The data of DTE-EX1121-SGA is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
628	TE 628	TE191C-LSB	LSB Spool Piece East	1. Installed 3/11/85. (AT-SB-01) 2. The data of DTE-IM1122-SGA is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
629	TE 629	TE191D-LSB	LSB Spool Piece South	1. Installed 3/11/85. (AT-SB-01) 2. The data of DTE-EX1122-SGA is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
630	TE 630	TE192-LSB	LSB Spool Piece	1. Installed 7/10/86. (SB-CL-08)	86-07-11
631	TE 631	TE211A-CLB	CLB Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
632	TE 632	TE211B-CLB	CLB Spool Piece Side	1. Installed 3/11/85. (AT-SB-01)	85-03-12
633	TE 633	TE211C-CLB	CLB Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
634	TE 634	TE212C-CLB	CLB Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
635	TE 635	TE212D-CLB	CLB Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
636	TE 636	TE291C-PR	PR Relief Valve Line	1. Installed 7/10/86. (SB-CL-08)	86-07-11
637	TE 637	TE291D-PR	PR Relief Valve Line	1. Installed 7/10/86. (SB-CL-08)	86-07-11
638	TE 638	TE301C-PR	PR Safety Valve Line	1. Installed 7/10/86. (SB-CL-08)	86-07-11
639	TE 639	TE301D-PR	PR Safety Valve Line	1. Installed 7/10/86. (SB-CL-08)	86-07-11
640	TE 640	TE311C-PR	PV-PR Vent Line	1. Installed 7/10/86. (SB-CL-08)	86-07-11
641	TE 641	TE311D-PR	PV-PR Vent Line	1. Installed 7/10/86. (SB-CL-08)	86-07-11
642	TE 642	TE461C-PR	SGA Safety Valve Line	1. Not installed.	85-03-14
643	TE 643	TE461D-PR	SGA Safety Valve Line	1. Not installed.	85-03-14
644	TE 644	TE571C-BU	BU No.1 SP	1. Installed 3/11/85. (AT-SB-01)	85-03-12
645	TE 645	TE571D-BU	BU No.1 SP	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 2/01/89.	85-03-12 89-02-03
646	TE 646	TE572A-BU		1. Not installed.	85-03-12
647	TE 647	TE572B-BU		1. Not installed.	85-03-12
648	TE 648	TE572C-BU		1. Not installed.	85-03-12
649	TE 649	TE572D-BU	BU No.1 SP CPT	1. Not installed.	85-03-12
650	TE 650	TE572E-BU	BU No.1 SP CPT	1. Not installed.	85-03-12
651	TE 651	TE591C-BU	BU No.2 SP	1. Installed 7/10/86. (SB-CL-08)	86-07-11
652	TE 652	TE591D-BU	BU No.2 SP	1. Installed 7/10/86. (SB-CL-08)	86-07-11
653	TE 653	TE592A-BU	BU No.2 SP CPT	1. Not installed.	85-03-12
654	TE 654	TE592B-BU	BU No.2 SP CPT	1. Not installed.	85-03-12
655	TE 655	TE592C-BU	BU No.2 SP CPT	1. Not installed.	85-03-12
656	TE 656	TE592D-BU	BU No.2 SP CPT	1. Not installed.	85-03-12
657	TE 657	TE592E-BU	BU No.2 SP CPT	1. Not installed.	85-03-12
662	TE 662	TE-N-006-DC	PV Downcomer DIT North	1. Installed 3/11/85. (AT-SB-01) 2. Disconnected to fix 4/05/88. (SB-CL-17)	85-03-12 88-04-20
663	TE 663	TE-S-006-DC	PV Downcomer DIT South	1. Installed 3/11/85. (AT-SB-01) 2. Disconnected to fix 4/05/88. (SB-CL-17)	85-03-12 88-04-20
664	TE 664	TE-E-006-DC	PV Downcomer DIT East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
665	TE 665	TE-W-006-DC	PV Downcomer DIT West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
666	TE 666	TE451C-SGA	SGA Safety Valve Spool Piece	1. Installed 7/10/86. (SB-CL-08)	86-07-11
667	TE 667	TE451D-SGA	SGA Safety Valve Spool Piece	1. Installed 7/10/86. (SB-CL-08)	86-07-11
668	TE 668	TE595-BU		1. Installed 7/25/88.	88-07-27
669	TE 669	TE596-BU		1. Installed 7/25/88.	88-07-27
670	TE 670	TE-111A-CDP	PLR-02-1 Fluid Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
671	TE 671	TE-111B-CDP	PLR-02-1 Fluid Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
672	TE 672	TE-112A-CDP	PLR-01-2 Fluid Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19

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SER NO	FUNC ID.	TAG NAME	LOCATION	EVENT N/D/Y (RUN NO.)	NOTIFICA. DATE
673	TE 673	TE-112B-CDP	PLR-01 2 Fluid Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
674	TE 674	TE-113A-CDP	PLR-08-3 Fluid Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
675	TE 675	TE-113B-CDP	PLR-08-3 Fluid Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
676	TE 676	TE-114A-CDP	PLR-07-4 Fluid Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
677	TE 677	TE-114B-CDP	PLR-07-4 Fluid Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
678	TE 678	TE-115A-CDP	PLR-06-5 Fluid Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
679	TE 679	TE-115B-CDP	PLR-06-5 Fluid Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
680	TE 680	TE-115C-CDP	PLR-06-5 Fluid Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
681	TE 681	TE-116A-CDP	PLR-05-6 Fluid Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
682	TE 682	TE-116B-CDP	PLR-05-6 Fluid Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
683	TE 683	TE-116C-CDP	PLR-05-6 Fluid Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
684	TE 684	TE-117A-CDP	PLR-04-7 Fluid Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
685	TE 685	TE-117B-CDP	PLR-04-7 Fluid Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
686	TE 686	TE-117C-CDP	PLR-04-7 Fluid Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
687	TE 687	TE-118A-CDP	PLR-03-8 Fluid Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
688	TE 688	TE-118B-CDP	PLR-03-8 Fluid Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
689	TE 689	TE-118C-CDP	PLR-03-8 Fluid Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
690	TE 690	TE-131-CDP	PLR-03-8 OII Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
691	TE 691	TE-132-CDP	PLR-03-8 OII Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
692	TE 692	TE-133-CDP	PLR-03-8 OII Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
693	TE 693	TE-134-CDP	PLR-03-8 OII Pos.4	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
694	TE 694	TE-135-CDP	PLR-03-8 OII Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
695	TE 695	TE-136-CDP	PLR-03-8 OII Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
696	TE 696	TE-137-CDP	PLR-03-8 OII Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
697	TE 697	TE-138-CDP	PLR-03-8 OII Pos.8	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
698	TE 698	TE-139-CDP	PLR-03-8 OII Pos.9	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
699	TE 699	TE-111E-CDP	PLR-02-1 OII Out let	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
700	TE 700	TE-112E-CDP	PLR-01-2 OII Out let	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
701	TE 701	TE-113E-CDP	PLR-08-3 OII Out let	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
702	TE 702	TE-114E-CDP	PLR-07-4 OII Out let	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
703	TE 703	TE-115E-CDP	PLR-06-5 OII Out let	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
704	TE 704	TE-116E-CDP	PLR-05-6 OII Out let	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
705	TE 705	TE-117E-CDP	PLR-04-7 OII Out let	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
706	TE 706	TE-118E-CDP	PLR-03-8 OII Out let	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
707	TE 707	TE-121E-UHDP	PLR-UH-9 OII Out let	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
708	TE 708	TE-121A-UHDP	PLR-UH-9 Fluid Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
709	TE 709	TE-121B-UHDP	PLR-UH-9 Fluid Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
710	TE 710	TE-121C-UHDP	PLR-UH-9 Fluid Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
711	FE 711	FE-E071C-DC	Downcomer EL7.1M,East	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
712	FE 712	FE-W071C-DC	Downcomer EL7.1M,West	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
713	FE 713	FE-E067C-DC	Downcomer EL6.7M,East	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
714	FE 714	FE-W067C-DC	Downcomer EL6.7M,West	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
715	TE 715	TE-951-CS	OII Inlet-Main	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
716	TE 716	TE-952-CS	OII Outlet-Main	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
717	TE 717	TE-953-CS	Heat exchanger Outlet	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
718	TE 718	TE-B05221	B05 Rod(2,2) Pos.1,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
719	TE 719	TE-B05223	B05 Rod(2,2) Pos.3,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
720	TE 720	TE-B05225	B05 Rod(2,2) Pos.5,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
721	TE 721	TE-B05226	B05 Rod(2,2) Pos.6,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
722	TE 722	TE-B05227	B05 Rod(2,2) Pos.7,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
723	TE 723	TE-B05229	B05 Rod(2,2) Pos.9,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
724	TE 724	TE-B07221	B07 Rod(2,2) Pos.1,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
725	TE 725	TE-B07223	B07 Rod(2,2) Pos.3,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
726	TE 726	TE-B07225	B07 Rod(2,2) Pos.5,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
727	TE 727	TE-B07226	B07 Rod(2,2) Pos.6,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
728	TE 728	TE-B07227	B07 Rod(2,2) Pos.7,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
729	TE 729	TE-B07229	B07 Rod(2,2) Pos.9,Fluid	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
730	TE 730	TE-EX0650-SGA	SGA Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
731	TE 731	TE-EX0680-SGA	SGA Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
732	TE 732	TE-EX0720-SGA	SGA Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
733	TE 733	TE-EX0650-SGB	SGB Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
734	TE 734	TE-EX0680-SGB	SGB Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
735	TE 735	TE-EX0720-SGB	SGB Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
751	DT 1	DTE020A-HLA	HLA Pipe Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
752	DT 2	DTE020B-HLA	HLA Pipe Wall to Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
753	DT 3	DTE030A-HLA	HLA Pipe Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
754	DT 4	DTE030B-HLA	HLA Pipe Wall to Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
755	DT 5	DTE050A-LSA	LSA Pipe Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
756	DT 6	DTE050B-LSA	LSA Pipe Wall Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
757	DT 7	DTE060A-PCA	PCA Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
758	DT 8	DTE070A-CLA	CLA Pipe Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
759	DT 9	DTE070B-CLA	CLA Pipe Wall to Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
760	DT 10	DTE080A-CLA	CLA Pipe Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
761	DT 11	DTE080B-CLA	CLA Pipe Wall to Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
762	DT 12	DTE100-HLA	HLA-CLA	1. Installed 3/11/85. (AT-SB-01)	85-03-12
763	DT 13	DTE160A-HLB	HLB Pipe Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
764	DT 14	DTE160B-HLB	HLB Pipe Wall to Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
765	DT 15	DTE170A-HLB	HLB Pipe Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
766	DT 16	DTE170B-HLB	HLB Pipe Wall to Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
767	DT 17	DTE190A-LSB	LSB Pipe Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
768	DT 18	DTE190B-LSB	LSB Pipe Wall to Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
769	DT 19	DTE200A-PCB	PCB Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
770	DT 20	DTE210A-CLB	CLB Pipe Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
771	DT 21	DTE210B-CLB	CLB Pipe Wall to Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
772	DT 22	DTE220A-CLB	CLB Pipe Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
773	DT 23	DTE220B-CLB	CLB Pipe Wall to Fluid	1. Installed 3/11/85. (AT-SB-01)	85-03-12
774	DT 24	DTE240-HLB	HLB-CLB	1. Installed 3/11/85. (AT-SB-01)	85-03-12
775	DT 25	DTE270A-PR	PR Spray Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
776	DT 26	DTE280A-PR	PR Surge Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
777	DT 27	DTE-E-015A-PV	PV Wall I/O-E at L. Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
778	DT 28	DTE-W-015A-PV	PV Wall I/O-W at L. Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
779	DT 29	DTE-N000A-PV	PV Wall I/O-N at DC Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
780	DT 30	DTE-S000A-PV	PV Wall I/O-S at DC Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
781	DT 31	DTE-E000A-PV	PV Wall I/O-E at DC Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
782	DT 32	DTE-W000A-PV	PV Wall I/O-W at DC Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
783	DT 33	DTE-N018A-PV	PV Wall I/O-N at DC Middle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
784	DT 34	DTE-S018A-PV	PV Wall I/O-S at DC Middle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
785	DT 35	DTE-E018A-PV	PV Wall I/O-E at DC Middle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
786	DT 36	DTE-W018A-PV	PV Wall I/O-W at DC Middle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
787	DT 37	DTE-N036A-PV	PV Wall I/O-N at Upper DC	1. Installed 3/11/85. (AT-SB-01)	85-03-12

SER NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICA. DATE
888	DT 138	DTE-000-023-LCP	In/Out Fluid across LCP	1. Installed 3/11/85. (AT-SB-01)	85-03-12
889	DT 139	DTE-086A-SGA	SGA Wall I/O Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
890	DT 140	DTE-137A-SGA	SGA Wall I/O Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
891	DT 141	DTE-178A-SGA	SGA Wall I/O Pos.10	1. Installed 3/11/85. (AT-SB-01) 2. Correct the wrong thermocouple connection between two locations TWE-178A-SGA and TWE-178B-SGA 12/16/85. (ST-NC/SG-02)	85-03-12
892	DT 142	DTE-223A-SGA	SGA Steam Dome Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-03-12
893	DT 143	DTE-IN0861-SGA	SGA U-Tube(1,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
894	DT 144	DTE-EX0861-SGA	SGA U-Tube(1,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
895	DT 145	DTE-IN0862-SGA	SGA U-Tube(2,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
896	DT 146	DTE-EX0862-SGA	SGA U-Tube(2,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
897	DT 147	DTE-IN0863-SGA	SGA U-Tube(3,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
898	DT 148	DTE-EX0863-SGA	SGA U-Tube(3,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
899	DT 149	DTE-IN0991-SGA	SGA U-Tube(1,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
900	DT 150	DTE-EX0991-SGA	SGA U-Tube(1,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
901	DT 151	DTE-IN0992-SGA	SGA U-Tube(2,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01) 2. The data of TE-2110-PR is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	85-03-12
902	DT 152	DTE-EX0992-SGA	SGA U-Tube(2,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01) 2. The data of TWE-IN0993-SGA is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
903	DT 153	DTE-IN0993-SGA	SGA U-Tube(3,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01) 2. The data of TWE-EX0993-SGA is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
904	DT 154	DTE-EX0993-SGA	SGA U-Tube(3,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01) 2. The data of TE151C-HLB is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
905	DT 155	DTE-IN1121-SGA	SGA U-Tube(1,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01) 2. The data of TE191A-LSB is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
906	DT 156	DTE-EX1121-SGA	SGA U-Tube(1,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01) 2. The data of TE191B-LSB is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
907	DT 157	DTE-IN1122-SGA	SGA U-Tube(2,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01) 2. The data of TE-191C-LSB is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
908	DT 158	DTE-EX1122-SGA	SGA U-Tube(2,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01) 2. The data of TE191D-LSB is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25 85-03-12
909	DT 159	DTE-IN1123-SGA	SGA U-Tube(3,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	87-12-25 85-03-12
910	DT 160	DTE-EX1123-SGA	SGA U-Tube(3,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
911	DT 161	DTE-IN1371-SGA	SGA U-Tube(1,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
912	DT 162	DTE-EX1371-SGA	SGA U-Tube(1,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
913	DT 163	DTE-IN1372-SGA	SGA U-Tube(2,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
914	DT 164	DTE-EX1372-SGA	SGA U-Tube(2,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
915	DT 165	DTE-IN1373-SGA	SGA U-Tube(3,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
916	DT 166	DTE-EX1373-SGA	SGA U-Tube(3,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
917	DT 167	DTE-IN1632-SGA	SGA U-Tube(2,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
918	DT 168	DTE-EX1632-SGA	SGA U-Tube(2,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
919	DT 169	DTE-IN1633-SGA	SGA U-Tube(3,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
920	DT 170	DTE-EX1633-SGA	SGA U-Tube(3,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
921	DT 171	DTE-IN1701-SGA	SGA U-Tube(1,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
922	DT 172	DTE-EX1702-SGA	SGA U-Tube(2,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
923	DT 173	DTE-IN1863-SGA	SGA U-Tube(3,IN) Pos.11	1. Installed 3/11/85. (AT-SB-01)	85-03-12
924	DT 174	DTE-086A-SGB	SGB Wall I/O Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
925	DT 175	DTE-137A-SGB	SGB Wall I/O Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
926	DT 176	DTE-178A-SGB	SGB Wall I/O Pos.10	1. Installed 3/11/85. (AT-SB-01) 2. Correct the wrong thermocouple connection between two locations TWE-178B-SGA and TWE-178A-SGA 12/16/85. (ST-NC/SG-02)	85-03-12
927	DT 177	DTE-223A-SGB	SGB Steam Dome Wall I/O	1. Installed 3/11/85. (AT-SB-01)	85-12-20 85-03-12
928	DT 178	DTE-IN0861-SGB	SGB U-Tube(1,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
929	DT 179	DTE-EX0861-SGB	SGB U-Tube(1,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
930	DT 180	DTE-IN0862-SGB	SGB U-Tube(2,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
931	DT 181	DTE-EX0862-SGB	SGB U-Tube(2,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
932	DT 182	DTE-IN0863-SGB	SGB U-Tube(3,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
933	DT 183	DTE-EX0863-SGB	SGB U-Tube(3,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
934	DT 184	DTE-IN0991-SGB	SGB U-Tube(1,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
935	DT 185	DTE-EX0991-SGB	SGB U-Tube(1,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
936	DT 186	DTE-IN0992-SGB	SGB U-Tube(2,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
937	DT 187	DTE-EX0992-SGB	SGB U-Tube(2,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
938	DT 188	DTE-IN0993-SGB	SGB U-Tube(3,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
939	DT 189	DTE-EX0993-SGB	SGB U-Tube(3,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
940	DT 190	DTE-IN1121-SGB	SGB U-Tube(1,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
941	DT 191	DTE-EX1121-SGB	SGB U-Tube(1,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
942	DT 192	DTE-IN1122-SGB	SGB U-Tube(2,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
943	DT 193	DTE-EX1122-SGB	SGB U-Tube(2,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
944	DT 194	DTE-IN1123-SGB	SGB U-Tube(3,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
945	DT 195	DTE-EX1123-SGB	SGB U-Tube(3,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01) 2. Correct the connection polarity between TWE-EX1123-SGB and TE-EX1123-SGB thermocouples 12/16/85. (ST-NC/SG-02)	85-03-12
946	DT 196	DTE-IN1371-SGB	SGB U-Tube(1,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-12-20 85-03-12
947	DT 197	DTE-EX1371-SGB	SGB U-Tube(1,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
948	DT 198	DTE-IN1372-SGB	SGB U-Tube(2,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
949	DT 199	DTE-EX1372-SGB	SGB U-Tube(2,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
950	DT 200	DTE-IN1373-SGB	SGB U-Tube(3,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
951	DT 201	DTE-EX1373-SGB	SGB U-Tube(3,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
952	DT 202	DTE-IN1632-SGB	SGB U-Tube(2,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
953	DT 203	DTE-EX1632-SGB	SGB U-Tube(2,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
954	DT 204	DTE-IN1633-SGB	SGB U-Tube(3,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
955	DT 205	DTE-EX1633-SGB	SGB U-Tube(3,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
956	DT 206	DTE-IN1701-SGB	SGB U-Tube(1,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
957	DT 207	DTE-EX1702-SGB	SGB U-Tube(2,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
958	DT 208	DTE-IN1863-SGB	SGB U-Tube(3,IN) Pos.11	1. Installed 3/11/85. (AT-SB-01)	85-03-12
991	CP 451	CPE-003001	Core Barrel Inside North Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
992	CP 452	CPE-003002	Core Barrel Inside North Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
993	CP 453	CPE-003003	Core Barrel Inside North Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
994	CP 454	CPE-003004	Core Barrel Inside North Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
995	CP 455	CPE-003005	Core Barrel Inside North Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
996	CP 456	CPE-003006	Core Barrel Inside North Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
997	CP 457	CPE-003007	Core Barrel Inside North Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (CRUN NO.)	NOTIFCA. DATE
998	CP 458	CPE-B03008	Core Barrel Inside North Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
999	CP 459	CPE-B03009	Core Barrel Inside North Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1000	CP 460	CPE-1N0630-SGA	SGA Inlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1001	CP 461	CPE-1N0650-SGA	SGA Inlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1002	CP 462	CPE-1N0680-SGA	SGA Inlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1003	CP 463	CPE-1N0720-SGA	SGA Inlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1004	CP 464	CPE-1N0760-SGA	SGA Inlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1005	CP 465	CPE-EX0630-SGA	SGA Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1006	CP 466	CPE-EX0650-SGA	SGA Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1007	CP 467	CPE-EX0680-SGA	SGA Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1008	CP 468	CPE-EX0720-SGA	SGA Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1009	CP 469	CPE-EX0760-SGA	SGA Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1010	CP 470	CPE-1N0630-SGB	SGB Inlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1011	CP 471	CPE-1N0650-SGB	SGB Inlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1012	CP 472	CPE-1N0680-SGB	SGB Inlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1013	CP 473	CPE-1N0720-SGB	SGB Inlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1014	CP 474	CPE-1N0760-SGB	SGB Inlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1015	CP 475	CPE-EX0630-SGB	SGB Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1016	CP 476	CPE-EX0650-SGB	SGB Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1017	CP 477	CPE-EX0680-SGB	SGB Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1018	CP 478	CPE-EX0720-SGB	SGB Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1019	CP 479	CPE-EX0760-SGB	SGB Outlet Plenum	1. Installed for reconstruction of SG plenum 12/07/88. (SB-CL-20)	88-12-19
1051	TW 1	TWE020B-HLA	HLA Pipe Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1052	TW 2	TWE030B-HLA	HLA Pipe Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1053	TW 3	TWE050B-LSA	LSA Pipe Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1054	TW 4	TWE060B-PCA	PCA Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1055	TW 5	TWE070B-CLA	CLA Pipe Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1056	TW 6	TWE080B-CLA	CLA Pipe Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1057	TW 7	TWE160B-HLB	HLB Pipe Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1058	TW 8	TWE170B-HLB	HLB Pipe Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1059	TW 9	TWE190B-LSB	LSB Pipe Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1060	TW 10	TWE200B-PCB	PCB Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1061	TW 11	TWE210B-CLB	CLB Pipe Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1062	TW 12	TWE220B-CLB	CLB Pipe Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1063	TW 13	TWE280B-PR	PR Surge Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1064	TW 14	TWE431A-SGA	SGA Downcomer A Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1065	TW 15	TWE432A-SGA	SGA Downcomer B Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1066	TW 16	TWE433A-SGA	SGA Downcomer C Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1067	TW 17	TWE434A-SGA	SGA Downcomer D Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1068	TW 18	TWE471A-SGB	SGB Downcomer A Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1069	TW 19	TWE472A-SGB	SGB Downcomer B Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1070	TW 20	TWE473A-SGB	SGB Downcomer C Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1071	TW 21	TWE474A-SGB	SGB Downcomer D Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1072	TW 22	TWE-E-015B-PV	PV Inner Wall EL.-1.5m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1073	TW 23	TWE-W-015B-PV	PV Inner Wall EL.-1.5m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1074	TW 24	TWE-N000B-PV	PV Inner Wall EL.0.0m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1075	TW 25	TWE-S000B-PV	PV Inner Wall EL.0.0m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1076	TW 26	TWE-E000B-PV	PV Inner Wall EL.0.0m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1077	TW 27	TWE-W000B-PV	PV Inner Wall EL.0.0m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1078	TW 28	TWE-N018B-PV	PV Inner Wall EL.1.8m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1079	TW 29	TWE-S018B-PV	PV Inner Wall EL.1.8m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1080	TW 30	TWE-E018B-PV	PV Inner Wall EL.1.8m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1081	TW 31	TWE-W018B-PV	PV Inner Wall EL.1.8m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1082	TW 32	TWE-N036B-PV	PV Inner Wall EL.3.6m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1083	TW 33	TWE-S036B-PV	PV Inner Wall EL.3.6m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1084	TW 34	TWE-E036B-PV	PV Inner Wall EL.3.6m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1085	TW 35	TWE-W036B-PV	PV Inner Wall EL.3.6m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1086	TW 36	TWE-N060B-PV	PV Inner Wall EL.6.0m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1087	TW 37	TWE-S060B-PV	PV Inner Wall EL.6.0m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1088	TW 38	TWE-E060B-PV	PV Inner Wall EL.6.0m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1089	TW 39	TWE-W060B-PV	PV Inner Wall EL.6.0m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1090	TW 40	TWE-E080B-PV	PV Inner Wall EL.8.0m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1091	TW 41	TWE-W080B-PV	PV Inner Wall EL.8.0m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1092	TW 42	TWE-N000B-CB	CB Outer Wall EL.0.0m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1093	TW 43	TWE-S000B-CB	CB Outer Wall EL.0.0m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1094	TW 44	TWE-E000B-CB	CB Outer Wall EL.0.0m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1095	TW 45	TWE-W000B-CB	CB Outer Wall EL.0.0m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1096	TW 46	TWE-N010B-CB	CB Outer Wall EL.1.0m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1097	TW 47	TWE-S010B-CB	CB Outer Wall EL.1.0m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1098	TW 48	TWE-E010B-CB	CB Outer Wall EL.1.0m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1099	TW 49	TWE-W010B-CB	CB Outer Wall EL.1.0m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1100	TW 50	TWE-N018B-CB	CB Outer Wall EL.1.8m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1101	TW 51	TWE-S018B-CB	CB Outer Wall EL.1.8m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1102	TW 52	TWE-E018B-CB	CB Outer Wall EL.1.8m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1103	TW 53	TWE-W018B-CB	CB Outer Wall EL.1.8m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1104	TW 54	TWE-N026B-CB	CB Outer Wall EL.2.6m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1105	TW 55	TWE-S026B-CB	CB Outer Wall EL.2.6m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1106	TW 56	TWE-E026B-CB	CB Outer Wall EL.2.6m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1107	TW 57	TWE-W026B-CB	CB Outer Wall EL.2.6m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1108	TW 58	TWE-N036B-CB	CB Outer Wall EL.3.6m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1109	TW 59	TWE-S036B-CB	CB Outer Wall EL.3.6m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1110	TW 60	TWE-E036B-CB	CB Outer Wall EL.3.6m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1111	TW 61	TWE-W036B-CB	CB Outer Wall EL.3.6m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1112	TW 62	TWE-N049B-CB	CB Outer Wall EL.4.9m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1113	TW 63	TWE-S049B-CB	CB Outer Wall EL.4.9m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1114	TW 64	TWE-E049B-CB	CB Outer Wall EL.4.9m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1115	TW 65	TWE-W049B-CB	CB Outer Wall EL.4.9m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1116	TW 66	TWE-N060B-CB	CB Outer Wall EL.6.0m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1117	TW 67	TWE-S060B-CB	CB Outer Wall EL.6.0m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1118	TW 68	TWE-E060B-CB	CB Outer Wall EL.6.0m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1119	TW 69	TWE-W060B-CB	CB Outer Wall EL.6.0m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1120	TW 70	TWE-N000E-CB	CB Inner Wall EL.0.0m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1121	TW 71	TWE-S000E-CB	CB Inner Wall EL.0.0m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1122	TW 72	TWE-E000E-CB	CB Inner Wall EL.0.0m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1123	TW 73	TWE-W000E-CB	CB Inner Wall EL.0.0m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1124	TW 74	TWE-N010E-CB	CB Inner Wall EL.1.0m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1125	TW 75	TWE-S010E-CB	CB Inner Wall EL.1.0m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1126	TW 76	TWE-E010E-CB	CB Inner Wall EL.1.0m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1127	TW 77	TWE-W010E-CB	CB Inner Wall EL.1.0m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1128	TW 78	TWE-N018E-CB	CB Inner Wall EL.1.8m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (CRUN NO.)	NOTIFICA. DATE
1129	TW 79	TWE-S018E-CB	CB Inner Wall EL.1.8m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1130	TW 80	TWE-E018E-CB	CB Inner Wall EL.1.8m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1131	TW 81	TWE-W018E-CB	CB Inner Wall EL.1.8m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1132	TW 82	TWE-N026E-CB	CB Inner Wall EL.2.6m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1133	TW 83	TWE-S026E-CB	CB Inner Wall EL.2.6m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1134	TW 84	TWE-E026E-CB	CB Inner Wall EL.2.6m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1135	TW 85	TWE-W026E-CB	CB Inner Wall EL.2.6m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1136	TW 86	TWE-N036E-CB	CB Inner Wall EL.3.6m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1137	TW 87	TWE-S036E-CB	CB Inner Wall EL.3.6m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1138	TW 88	TWE-E036E-CB	CB Inner Wall EL.3.6m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1139	TW 89	TWE-W036E-CB	CB Inner Wall EL.3.6m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1140	TW 90	TWE-N049E-CB	CB Inner Wall EL.4.9m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1141	TW 91	TWE-S049E-CB	CB Inner Wall EL.4.9m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1142	TW 92	TWE-E049E-CB	CB Inner Wall EL.4.9m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1143	TW 93	TWE-W049E-CB	CB Inner Wall EL.4.9m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1144	TW 94	TWE-N060E-CB	CB Inner Wall EL.6.0m,N	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1145	TW 95	TWE-S060E-CB	CB Inner Wall EL.6.0m,S	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1146	TW 96	TWE-E060E-CB	CB Inner Wall EL.6.0m,E	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1147	TW 97	TWE-W060E-CB	CB Inner Wall EL.6.0m,W	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1148	TW 98	TWE-1N038002-UCPP	UCP L.Surf. EL.3.8m,002	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1149	TW 99	TWE-1N038004-UCPP	UCP L.Surf. EL.3.8m,004	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1150	TW 100	TWE-1N038006-UCPP	UCP L.Surf. EL.3.8m,006	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1151	TW 101	TWE-1N038008-UCPP	UCP L.Surf. EL.3.8m,008	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1152	TW 102	TWE-1N038021-UCPP	UCP L.Surf. EL.3.8m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1153	TW 103	TWE-EX040002-UCPP	UCP U.Surf. EL.4.0m,002	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1154	TW 104	TWE-EX040004-UCPP	UCP U.Surf. EL.4.0m,004	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1155	TW 105	TWE-EX040006-UCPP	UCP U.Surf. EL.4.0m,006	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1156	TW 106	TWE-EX040008-UCPP	UCP U.Surf. EL.4.0m,008	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1157	TW 107	TWE-EX040021-UCPP	UCP U.Surf. EL.4.0m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1158	TW 108	TWE-063-809-UCSP	UCSP L.Surf. EL.6.3m,809	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1159	TW 109	TWE-065-809-UCSP	UCSP U.Surf. EL.6.5m,809	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1160	TW 110	TWE-E047G-UP	UP Str. Surf. EL.4.7m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1161	TW 111	TWE-W047G-UP	UP Str. Surf. EL.4.7m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1162	TW 112	TWE-E056G-UP	UP Str. Surf. EL.5.6m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1163	TW 113	TWE-W056G-UP	UP Str. Surf. EL.5.6m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1164	TW 114	TWE-080G-UH	UH Str. Surf. EL.8.0m,C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1165	TW 115	TWE-B01342	B01 Rod(3,4) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1166	TW 116	TWE-B01344	B01 Rod(3,4) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1167	TW 117	TWE-B01345	B01 Rod(3,4) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1168	TW 118	TWE-B01346	B01 Rod(3,4) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1169	TW 119	TWE-B01347	B01 Rod(3,4) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1170	TW 120	TWE-B01348	B01 Rod(3,4) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1171	TW 121	TWE-B20431	B20 Rod(4,3) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1172	TW 122	TWE-B20433	B20 Rod(4,3) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1173	TW 123	TWE-B20435	B20 Rod(4,3) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1174	TW 124	TWE-B20436	B20 Rod(4,3) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1175	TW 125	TWE-B20438	B20 Rod(4,3) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1176	TW 126	TWE-B20439	B20 Rod(4,3) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1177	TW 127	TWE-B02241	B02 Rod(2,4) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1178	TW 128	TWE-B02242	B02 Rod(2,4) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1179	TW 129	TWE-B02244	B02 Rod(2,4) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1180	TW 130	TWE-B02245	B02 Rod(2,4) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1181	TW 131	TWE-B02247	B02 Rod(2,4) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1182	TW 132	TWE-B02249	B02 Rod(2,4) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1183	TW 133	TWE-B02341	B02 Rod(3,4) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1184	TW 134	TWE-B02343	B02 Rod(3,4) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1185	TW 135	TWE-B02345	B02 Rod(3,4) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1186	TW 136	TWE-B02346	B02 Rod(3,4) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1187	TW 137	TWE-B02348	B02 Rod(3,4) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1188	TW 138	TWE-B02349	B02 Rod(3,4) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1189	TW 139	TWE-B02482	B02 Rod(4,8) Pos.2	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1190	TW 140	TWE-B02484	B02 Rod(4,8) Pos.4	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1191	TW 141	TWE-B02485	B02 Rod(4,8) Pos.5	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1192	TW 142	TWE-B02486	B02 Rod(4,8) Pos.6	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1193	TW 143	TWE-B02487	B02 Rod(4,8) Pos.7	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1194	TW 144	TWE-B02488	B02 Rod(4,8) Pos.8	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1195	TW 145	TWE-B03421	B03 Rod(4,2) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1196	TW 146	TWE-B03422	B03 Rod(4,2) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1197	TW 147	TWE-B03424	B03 Rod(4,2) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1198	TW 148	TWE-B03425	B03 Rod(4,2) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1199	TW 149	TWE-B03427	B03 Rod(4,2) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1200	TW 150	TWE-B03429	B03 Rod(4,2) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1201	TW 151	TWE-B03431	B03 Rod(4,3) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1202	TW 152	TWE-B03433	B03 Rod(4,3) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1203	TW 153	TWE-B03435	B03 Rod(4,3) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1204	TW 154	TWE-B03436	B03 Rod(4,3) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1205	TW 155	TWE-B03438	B03 Rod(4,3) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1206	TW 156	TWE-B03439	B03 Rod(4,3) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1207	TW 157	TWE-B03842	B03 Rod(8,4) Pos.2	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1208	TW 158	TWE-B03844	B03 Rod(8,4) Pos.4	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1209	TW 159	TWE-B03845	B03 Rod(8,4) Pos.5	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1210	TW 160	TWE-B03846	B03 Rod(8,4) Pos.6	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1211	TW 161	TWE-B03847	B03 Rod(8,4) Pos.7	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1212	TW 162	TWE-B03848	B03 Rod(8,4) Pos.8	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1213	TW 163	TWE-B04432	B04 Rod(4,3) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1214	TW 164	TWE-B04434	B04 Rod(4,3) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1215	TW 165	TWE-B04435	B04 Rod(4,3) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1216	TW 166	TWE-B04436	B04 Rod(4,3) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12

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SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICATION DATE
1499	TW 449	TWE-B24448	B24 Rod(4,4) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1500	TW 450	TWE-B24449	B24 Rod(4,4) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1501	TW 451	TWE-B24712	B24 Rod(7,1) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1502	TW 452	TWE-B24714	B24 Rod(7,1) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1503	TW 453	TWE-B24715	B24 Rod(7,1) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1504	TW 454	TWE-B24716	B24 Rod(7,1) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1505	TW 455	TWE-B24717	B24 Rod(7,1) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1506	TW 456	TWE-B24718	B24 Rod(7,1) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1507	TW 457	TWE-IN0641-SGA	SGA Inlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1508	TW 458	TWE-IN0642-SGA	SGA Inlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1509	TW 459	TWE-IN0643-SGA	SGA Inlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1510	TW 460	TWE-EX0641-SGA	SGA Outlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	88-12-09
1511	TW 461	TWE-EX0642-SGA	SGA Outlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	88-12-09
1512	TW 462	TWE-EX0643-SGA	SGA Outlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	88-12-09
1513	TW 463	TWE-086B-SGA	SGA Inner Wall Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1514	TW 464	TWE-137B-SGA	SGA Inner Wall Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1515	TW 465	TWE-178B-SGA	SGA Inner Wall Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1516	TW 466	TWE-223B-SGA	SGA Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1517	TW 467	TWE-IN0861-SGA	SGA U-Tube(1,IN) Pos.1	1. Installed 1/17/86.	86-01-20
1518	TW 468	TWE-EX0861-SGA	SGA U-Tube(1,EX) Pos.1	1. Installed 1/17/86.	86-01-20
1519	TW 469	TWE-IN0862-SGA	SGA U-Tube(2,IN) Pos.1	1. Installed 1/17/86.	86-01-20
1520	TW 470	TWE-EX0862-SGA	SGA U-Tube(2,EX) Pos.1	1. Installed 1/17/86.	86-01-20
1521	TW 471	TWE-IN0863-SGA	SGA U-Tube(3,IN) Pos.1	1. Installed 1/17/86.	86-01-20
1522	TW 472	TWE-EX0863-SGA	SGA U-Tube(3,EX) Pos.1	1. Installed 1/17/86.	86-01-20
1523	TW 473	TWE-IN0991-SGA	SGA U-Tube(1,IN) Pos.3	1. Installed 1/17/86.	86-01-20
1524	TW 474	TWE-EX0991-SGA	SGA U-Tube(1,EX) Pos.3	1. Installed 1/17/86.	86-01-20
1525	TW 475	TWE-IN0992-SGA	SGA U-Tube(2,IN) Pos.3	1. Installed 1/17/86.	86-01-20
1526	TW 476	TWE-EX0992-SGA	SGA U-Tube(2,EX) Pos.3	1. Installed 1/17/86.	86-01-20
1527	TW 477	TWE-IN0993-SGA	SGA U-Tube(3,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. The data of DTE-EX0992-SGA is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25
1528	TW 478	TWE-EX0993-SGA	SGA U-Tube(3,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. The data of DTE-IN0992-SGA is recorded for SB-HL-03 and SB-CL-13 without changing the range data. So it can not be used.	87-12-25
1529	TW 479	TWE-IN1121-SGA	SGA U-Tube(1,IN) Pos.5	1. Installed 1/17/86.	86-01-20
1530	TW 480	TWE-EX1121-SGA	SGA U-Tube(1,EX) Pos.5	1. Installed 1/17/86.	86-01-20
1531	TW 481	TWE-IN1122-SGA	SGA U-Tube(2,IN) Pos.5	1. Installed 1/17/86.	86-01-20
1532	TW 482	TWE-EX1122-SGA	SGA U-Tube(2,EX) Pos.5	1. Installed 1/17/86.	86-01-20
1533	TW 483	TWE-IN1123-SGA	SGA U-Tube(3,IN) Pos.5	1. Installed 1/17/86.	86-01-20
1534	TW 484	TWE-EX1123-SGA	SGA U-Tube(3,EX) Pos.5	1. Installed 1/17/86.	86-01-20
1535	TW 485	TWE-IN1371-SGA	SGA U-Tube(1,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1536	TW 486	TWE-EX1371-SGA	SGA U-Tube(1,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1537	TW 487	TWE-IN1372-SGA	SGA U-Tube(2,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1538	TW 488	TWE-EX1372-SGA	SGA U-Tube(2,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1539	TW 489	TWE-IN1373-SGA	SGA U-Tube(3,IN) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1540	TW 490	TWE-EX1373-SGA	SGA U-Tube(3,EX) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1541	TW 491	TWE-IN1632-SGA	SGA U-Tube(2,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1542	TW 492	TWE-EX1632-SGA	SGA U-Tube(2,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1543	TW 493	TWE-IN1633-SGA	SGA U-Tube(3,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1544	TW 494	TWE-EX1633-SGA	SGA U-Tube(3,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1545	TW 495	TWE-IN1701-SGA	SGA U-Tube(1,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1546	TW 496	TWE-EX1702-SGA	SGA U-Tube(2,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1547	TW 497	TWE-IN1863-SGA	SGA U-Tube(3,IN) Pos.11	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1548	TW 498	TWE-IN0641-SGB	SGB Inlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1549	TW 499	TWE-IN0642-SGB	SGB Inlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1550	TW 500	TWE-IN0643-SGB	SGB Inlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1551	TW 501	TWE-EX0641-SGB	SGB Outlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	88-12-09
1552	TW 502	TWE-EX0642-SGB	SGB Outlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	88-12-09
1553	TW 503	TWE-EX0643-SGB	SGB Outlet Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for SG plenum renewal 12/07/88. (SB-CL-20)	88-12-09
1554	TW 504	TWE-086B-SGB	SGB Inner Wall Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1555	TW 505	TWE 137B SGB	SGB Inner Wall Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1556	TW 506	TWE-178B-SGB	SGB Inner Wall Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1557	TW 507	TWE-223B-SGB	SGB Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1558	TW 508	TWE-IN0861-SGB	SGB U-Tube(1,IN) Pos.1	1. Installed 1/17/86.	86-01-20
1559	TW 509	TWE-EX0861-SGB	SGB U-Tube(1,EX) Pos.1	1. Installed 1/17/86.	86-01-20
1560	TW 510	TWE-IN0862-SGB	SGB U-Tube(2,IN) Pos.1	1. Installed 1/17/86.	86-01-20
1561	TW 511	TWE-EX0862-SGB	SGB U-Tube(2,EX) Pos.1	1. Installed 1/17/86.	86-01-20
1562	TW 512	TWE-IN0863-SGB	SGB U-Tube(3,IN) Pos.1	1. Installed 1/17/86.	86-01-20
1563	TW 513	TWE-EX0863-SGB	SGB U-Tube(3,EX) Pos.1	1. Installed 1/17/86.	86-01-20
1564	TW 514	TWE-IN0991-SGB	SGB U-Tube(1,IN) Pos.3	1. Installed 1/17/86.	86-01-20
1565	TW 515	TWE-EX0991-SGB	SGB U-Tube(1,EX) Pos.3	1. Installed 1/17/86.	86-01-20
1566	TW 516	TWE-IN0992-SGB	SGB U-Tube(2,IN) Pos.3	1. Installed 1/17/86.	86-01-20
1567	TW 517	TWE-EX0992-SGB	SGB U-Tube(2,EX) Pos.3	1. Installed 1/17/86.	86-01-20
1568	TW 518	TWE-IN0993-SGB	SGB U-Tube(3,IN) Pos.3	1. Installed 1/17/86.	86-01-20
1569	TW 519	TWE-EX0993-SGB	SGB U-Tube(3,EX) Pos.3	1. Installed 1/17/86.	86-01-20
1570	TW 520	TWE-IN1121-SGB	SGB U-Tube(1,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1571	TW 521	TWE-EX1121-SGB	SGB U-Tube(1,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1572	TW 522	TWE-IN1122-SGB	SGB U-Tube(2,IN) Pos.5	1. Installed 1/17/86.	86-01-20
1573	TW 523	TWE-EX1122-SGB	SGB U-Tube(2,EX) Pos.5	1. Installed 1/17/86.	86-01-20
1574	TW 524	TWE-IN1123-SGB	SGB U-Tube(3,IN) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1575	TW 525	TWE-EX1123-SGB	SGB U-Tube(3,EX) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1576	TW 526	TWE-IN1371-SGB	SGB U-Tube(1,IN) Pos.7	1. Installed 1/17/86.	86-01-20
1577	TW 527	TWE-EX1371-SGB	SGB U-Tube(1,EX) Pos.7	1. Installed 1/17/86.	86-01-20
1578	TW 528	TWE-IN1372-SGB	SGB U-Tube(2,IN) Pos.7	1. Installed 1/17/86.	86-01-20
1579	TW 529	TWE-EX1372-SGB	SGB U-Tube(2,EX) Pos.7	1. Installed 1/17/86.	86-01-20
1580	TW 530	TWE-IN1373-SGB	SGB U-Tube(3,IN) Pos.7	1. Installed 1/17/86.	86-01-20
1581	TW 531	TWE-EX1373-SGB	SGB U-Tube(3,EX) Pos.7	1. Installed 1/17/86.	86-01-20
1582	TW 532	TWE-IN1632-SGB	SGB U-Tube(2,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1583	TW 533	TWE-EX1632-SGB	SGB U-Tube(2,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1584	TW 534	TWE-IN1633-SGB	SGB U-Tube(3,IN) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1585	TW 535	TWE-EX1633-SGB	SGB U-Tube(3,EX) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1586	TW 536	TWE-IN1701-SGB	SGB U-Tube(1,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1587	TW 537	TWE-EX1702-SGB	SGB U-Tube(2,IN) Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1588	TW 538	TWE-IN1863-SGB	SGB U-Tube(3,IN) Pos.11	1. Installed 3/11/85. (AT-SB-01)	85-03-12

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SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICA. DATE
1589	TW 539	TWE-211A-PR	PR Outer Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1590	TW 540	TWE-211B-PR	PR Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1591	TW 541	TWE-194A-PR	PR Outer Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1592	TW 542	TWE-194B-PR	PR Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1593	TW 543	TWE-177A-PR	PR Outer Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1594	TW 544	TWE-177B-PR	PR Inner Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1595	TW 545	TWE270A-PR	PR Spray Line Outer Wall	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1596	TW 546	TWE011A-HLA	HLA S.P Top	1. Not installed.	85-03-12
1597	TW 547	TWE011B-HLA	HLA S.P Side	1. Not installed.	85-03-12
1598	TW 548	TWE011C-HLA	HLA S.P Bottom	1. Not installed.	85-03-12
1599	TW 549	TWE021-HLA	SGA Inlet	1. Not installed.	85-03-12
1600	TW 550	TWE051A-LSA	LSA Line North	1. Not installed.	85-03-12
1601	TW 551	TWE051B-LSA	LSA Line South	1. Not installed.	85-03-12
1602	TW 552	TWE051C-LSA	LSA Line East	1. Not installed.	85-03-12
1603	TW 553	TWE051D-LSA	SGA Outlet	1. Not installed.	85-03-12
1604	TW 554	TWE071A-CLA	CLA S.P Top	1. Not installed.	85-03-12
1605	TW 555	TWE071B-CLA	CLA S.P Side	1. Not installed.	85-03-12
1606	TW 556	TWE071C-CLA	CLA S.P Bottom	1. Not installed.	85-03-12
1607	TW 557	TWE151A-HLB	HLB S.P Top	1. Not installed.	85-03-12
1608	TW 558	TWE151B-HLB	HLB S.P Side	1. Not installed.	85-03-12
1609	TW 559	TWE151C-HLB	HLB S.P Bottom	1. Not installed.	85-03-12
1610	TW 560	TWE161-HLB	SGB Inlet	1. Not installed.	85-03-12
1611	TW 561	TWE191A-LSB	LSB Line North	1. Not installed.	85-03-12
1612	TW 562	TWE191B-LSB	LSB Line South	1. Not installed.	85-03-12
1613	TW 563	TWE191C-LSB	LSB Line East	1. Not installed.	85-03-12
1614	TW 564	TWE191D-LSB	SGB Outlet	1. Not installed.	85-03-12
1615	TW 565	TWE211A-CLB	CLB S.P Top	1. Not installed.	85-03-12
1616	TW 566	TWE211B-CLB	CLB S.P Side	1. Not installed.	85-03-12
1617	TW 567	TWE211C-CLB	CLB S.P Bottom	1. Not installed.	85-03-12
1618	TW 568	TWE291A-PR	PR Relief Line S.P Top	1. No date acquisition.	86-07-15
1619	TW 569	TWE291B-PR	PR Relief Line S.P Bottom	1. No date acquisition.	86-07-15
1620	TW 570	TWE301A-PR	PR Safety S.P Top	1. No date acquisition.	86-07-15
1621	TW 571	TWE301B-PR	PR Safety S.P Bottom	1. No date acquisition.	86-07-15
1622	TW 572	TWE571A-BU	BU.1 S.P Up-Stream	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1623	TW 573	TWE571B-BU	BU.1 S.P Down-Stream	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1624	TW 574	TWE591A-BU	BU.2 S.P Up-Stream	1. No date acquisition.	86-07-15
1625	TW 575	TWE591B-BU	BU.2 S.P Down-Stream	1. No date acquisition.	86-07-15
1626	TW 576	TWE-N-006-PV		1. Not installed.	85-03-12
1627	TW 577	TWE-S-006-PV		1. Not installed.	85-03-12
1628	TW 578	TWE-E-006-PV		1. Not installed.	85-03-12
1629	TW 579	TWE-W-006-PV		1. Not installed.	85-03-12
1630	TW 580	TWE-M-006-PV		1. Not installed.	85-03-12
1631	TW 581	TWE061A-LSA	LSA S.P North	1. No date acquisition.	86-07-15
1632	TW 582	TWE061B-LSA	LSA S.P South	1. No date acquisition.	86-07-15
1633	TW 583	TWE201A-LSB	LSB S.P South	1. No date acquisition.	86-07-15
1634	TW 584	TWE201B-LSB	LSB S.P North	1. No date acquisition.	86-07-15
1635	TW 585	TWE311A-PR	PV-PR Vent Line S.P Top	1. No date acquisition.	86-07-15
1636	TW 586	TWE311B-PR	PV-PR Vent Line S.P Bottom	1. No date acquisition.	86-07-15
1637	TW 587	TWE572A-BU	BU No.1 SP CPT	1. Not installed.	85-03-12
1638	TW 588	TWE572B-BU	BU No.1 SP CPT	1. Not installed.	85-03-12
1639	TW 589	TWE572C-BU	BU No.1 SP CPT	1. Not installed.	85-03-12
1640	TW 590	TWE-111B-CDP	PLR-02-1 Outer Wall	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1641	TW 591	TWE-112B-CDP	PLR-01-2 Outer Wall	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1642	TW 592	TWE-113B-CDP	PLR-08-3 Outer Wall	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1643	TW 593	TWE-114B-CDP	PLR-07-4 Outer Wall	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1644	TW 594	TWE-115B-CDP	PLR-06-5 Outer Wall	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1645	TW 595	TWE-116B-CDP	PLR-05-6 Outer Wall	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1646	TW 596	TWE-117B-CDP	PLR-04-7 Outer Wall	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1647	TW 597	TWE-118B-CDP	PLR-03-8 Outer Wall	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1648	TW 598	TWE-121D-UHDP	PLR-UH-9 Outer wall	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1649	TW 599	TWE-802552	R02 Rod(5,5) Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1650	TW 600	TWE-802554	R02 Rod(5,5) Pos.4	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1651	TW 601	TWE-802555	R02 Rod(5,5) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1652	TW 602	TWE-802556	R02 Rod(5,5) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1653	TW 603	TWE-802557	R02 Rod(5,5) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1654	TW 604	TWE-802558	R02 Rod(5,5) Pos.8	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1655	TW 605	TWE-803552	R03 Rod(5,5) Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1656	TW 606	TWE-803554	R03 Rod(5,5) Pos.4	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1657	TW 607	TWE-803555	R03 Rod(5,5) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1658	TW 608	TWE-803556	R02 Rod(5,5) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1659	TW 609	TWE-803557	R03 Rod(5,5) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1660	TW 610	TWE-803558	R03 Rod(5,5) Pos.8	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1661	TW 611	TWE-805112	R05 Rod(1,1) Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1662	TW 612	TWE-805114	R05 Rod(1,1) Pos.4	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1663	TW 613	TWE-805115	R05 Rod(1,1) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1664	TW 614	TWE-805116	R05 Rod(1,1) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1665	TW 615	TWE-805117	R05 Rod(1,1) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1666	TW 616	TWE-805118	R05 Rod(1,1) Pos.8	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1667	TW 617	TWE-806552	R06 Rod(5,5) Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1668	TW 618	TWE-806554	R06 Rod(5,5) Pos.4	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1669	TW 619	TWE-806555	R06 Rod(5,5) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1670	TW 620	TWE-806556	R06 Rod(5,5) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1671	TW 621	TWE-806557	R06 Rod(5,5) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1672	TW 622	TWE-806558	R06 Rod(5,5) Pos.8	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1673	TW 623	TWE-807552	R07 Rod(5,5) Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1674	TW 624	TWE-807554	R07 Rod(5,5) Pos.4	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1675	TW 625	TWE-807555	R07 Rod(5,5) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1676	TW 626	TWE-807556	R07 Rod(5,5) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1677	TW 627	TWE-807557	R07 Rod(5,5) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1678	TW 628	TWE-807558	R07 Rod(5,5) Pos.8	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1679	TW 629	TWE-801221	R01 Rod(2,2) Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1680	TW 630	TWE-801223	R01 Rod(2,2) Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1681	TW 631	TWE-801225	R01 Rod(2,2) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1682	TW 632	TWE-801226	R01 Rod(2,2) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1683	TW 633	TWE-801227	R01 Rod(2,2) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1684	TW 634	TWE-801229	R01 Rod(2,2) Pos.9	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1685	TW 635	TWE-804221	R04 Rod(2,2) Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1686	TW 636	TWE-804223	R04 Rod(2,2) Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1687	TW 637	TWE-804225	R04 Rod(2,2) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1688	TW 638	TWE-804226	R04 Rod(2,2) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1689	TW 639	TWE-804227	R04 Rod(2,2) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19

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1690	TW 640	TWE-B04229	B04 Rod(2,2) Pos.9	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1691	TW 641	TWE-B10621	B10 Rod(6,2) Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1692	TW 642	TWE-B10623	B10 Rod(6,2) Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1693	TW 643	TWE-B10625	B10 Rod(6,2) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1694	TW 644	TWE-B10626	B10 Rod(6,2) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1695	TW 645	TWE-B10627	B10 Rod(6,2) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1696	TW 646	TWE-B10629	B10 Rod(6,2) Pos.9	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1697	TW 647	TWE-B11221	B11 Rod(2,2) Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1698	TW 648	TWE-B11223	B11 Rod(2,2) Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1699	TW 649	TWE-B11225	B11 Rod(2,2) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1700	TW 650	TWE-B11226	B11 Rod(2,2) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1701	TW 651	TWE-B11227	B11 Rod(2,2) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1702	TW 652	TWE-B11229	B11 Rod(2,2) Pos.9	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1703	TW 653	TWE-B16221	B16 Rod(2,2) Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1704	TW 654	TWE-B16223	B16 Rod(2,2) Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1705	TW 655	TWE-B16225	B16 Rod(2,2) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1706	TW 656	TWE-B16226	B16 Rod(2,2) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1707	TW 657	TWE-B16227	B16 Rod(2,2) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1708	TW 658	TWE-B16229	B16 Rod(2,2) Pos.9	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
1731	FE 1	FE010-HLA	HLA Leakage(Positive)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1732	FE 2	FE020A-LSA	Primary Loop A (High)	2. Remote operation valve is installed 2/10/89. 1. Installed 3/11/85. (AT-SB-01)	89-02-13 85-03-12
1733	FE 3	FE020B-LSA	Primary Loop A (Low)	2. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01)	87-10-03 85-03-12
1734	FE 4	FE150-HLB	HLB Leakage(Positive)	3. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01)	87-10-03 85-03-12
1735	FE 5	FE160A-LSB	Primary Loop B (High)	2. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01)	87-10-03 85-03-12
1736	FE 6	FE160B-LSB	Primary Loop B (Low)	2. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01)	87-10-03 85-03-12
1737	FE 7	FE270-PR	PR Spray Line	3. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01)	87-10-03 85-03-12
1738	FE 8	FE280A-PR	PR Surge Line (Forward)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1739	FE 9	FE280B-PR	PR Surge Line (Reverse)	2. Removed 5/10/87. 1. Installed 3/11/85. (AT-SB-01)	87-05-13 85-03-12
1740	FE 10	FE290-PR	PR Relief Valve	2. Removed 5/10/87. 1. Installed 3/11/85. (AT-SB-01)	87-05-13 85-03-12
1741	FE 11	FE300-PR	PR Safety Valve	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1742	FE 12	FE310-PV	PV-PR Vent Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1743	FE 13	FE430-SGA	SGA Feedwater	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1744	FE 14	FE431-SGA	SGA Downcomer	2. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01)	87-10-03 85-03-12
1745	FE 15	FE432-SGA	SGA Downcomer	2. Remote operation valve is installed 2/10/89. 1. Installed 3/11/85. (AT-SB-01)	89-02-13 85-03-12
1746	FE 16	FE433-SGA	SGA Downcomer	2. Remote operation valve is installed 2/10/89. 1. Installed 3/11/85. (AT-SB-01)	89-02-13 85-03-12
1747	FE 17	FE434-SGA	SGA Downcomer	2. Remote operation valve is installed 2/10/89. 1. Installed 3/11/85. (AT-SB-01)	89-02-13 85-03-12
1748	FE 18	FE440-SGA	SGA Steam Line	2. Remote operation valve is installed 2/10/89. 1. Installed 3/11/85. (AT-SB-01)	89-02-13 85-03-12
1749	FE 19	FE450-SGA	SGA Relief Valve Line	2. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01)	87-10-03 85-03-12
1750	FE 20	FE460-SGA	SGA Safety Valve Line	2. Changed location of temperature measurement from TE450-SGA -> TE440-SGA used for Temperature - Pressure correction 7/13/85. (SB-CL-12)	85-07-20
1751	FE 21	FE470-SGB	SGB Feedwater	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1752	FE 22	FE471-SGB	SGB Downcomer	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
1753	FE 23	FE472-SGB	SGB Downcomer	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 2/10/89.	85-03-12 89-02-13
1754	FE 24	FE473-SGB	SGB Downcomer	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 2/10/89.	85-03-12 89-02-13
1755	FE 25	FE474-SGB	SGB Downcomer	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 2/10/89.	85-03-12 89-02-13
1756	FE 26	FE480-SGB	SGB Steam Line	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 2/10/89.	85-03-12 89-02-13
1757	FE 27	FE490-SGB	SGB Relief Valve Line	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03 85-03-12
1758	FE 28	FE500-SGB	SGB Safety Valve Line	2. Changed location of temperature measurement from TE490-SGB -> TE480-SGB used for temperature - Pressure correction 7/13/85. (SB-CL-12)	85-07-20
1759	FE 29	FE510-SH	Steam Header	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1760	FE 30	FE520-PA	Auxiliary Feedwater	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1761	FE 31	FE560A-BU	BU No.1 Venturi (High)	1. Installed 3/11/85. (AT-SB-01) 2. Exchanged to KDG DP cell. Range(high) is changed, 100 -> 70 3/13/87. (TR-LF-02)	85-03-12 87-03-20
1762	FE 32	FE560B-BU	BU No.1 Venturi (Low)	3. Tagname is changed, FE560A-BU => FE560B-BU for only SB-HL-02. 4. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01)	87-07-03 87-10-03 85-03-12
1763	FE 33	FE570A-BU	BU No.2 Venturi (High)	2. Exchanged to KDG DP cell 3/13/87. (TR-LF-02) 3. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-03-20 87-10-03
1764	FE 34	FE570B-BU	BU No.2 Venturi (Low)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1765	FE 35	FE580-ST	ST Vent Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1766	FE 36	FE590-ST	ST Bleed Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1767	FE 37	FE650-ACC	Cold Acc Flow to CL A	1. Installed 3/11/85. (AT-SB-01) 2. Range(high) and coefficient are changed 7/22/86. (SB-CL-09) Range : 80 => 15 Coefficient : 963.0 => 994.1	85-03-12 86-08-30
1768	FE 38	FE660-ACC	Cold Acc Flow to CL B	3. Exchanged DP cell 2/01/89.	89-02-03
1769	FE 39	FE670-ACH	Hot Acc Flow to CL A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1770	FE 40	FE680-ACH	Hot Acc Flow to CL B	1. Installed 3/11/85. (AT-SB-01) 2. Range(high) and coefficient are changed 7/22/86. (SB-CL-09) Range : 90 => 10 Coefficient : 870.8 => 994.1	85-03-12 86-08-30
				3. Exchanged DP cell 2/01/89.	89-02-03

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICA. DATE
1771	FE 41	FE730-PJ	PJ Delivery	1. Installed 3/11/85. (AT-SB-01) 2. Exchanged to KDG DP cell. Range(high) and location are changed 3/13/87. (TR-LF-02)	85-03-12
1772	FE 42	FE740-PJ	Charging Flow to Loop A	1. Installed 3/11/85. (AT-SB-01) 2. Range(high) is changed, 3.0 => 1.4 3/13/87. (TR-LF-02)	87-03-20 87-03-20
1773	FE 43	FE750-PJ	Charging Flow to Loop B	1. Installed 3/11/85. (AT-SB-01) 2. Range(high) is changed, 3.0 => 0.4 3/13/87. (TR-LF-02)	85-03-12 87-03-20
1774	FE 44	FE760-PH	PH Delivery(High)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1775	FE 45	FE770-PH	HPI Flow to Loop A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1776	FE 46	FE780-PH	HPI Flow to Loop B(High)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1777	FE 47	FE790-PJ	Charging Flow to CLA	2. Range(high) is changed, 3.0 => 0.5 3/13/87. (TR-LF-02)	87-03-20
1778	FE 48	FE820-PL	RHR Outlet(High)	1. Installed 3/11/85. (AT-SB-01) 2. Location is changed, RHR Outlet => RHR outlet(High) 3/13/87. (TR-LF-02)	85-03-12 87-03-20
1779	FE 49	FE830-PL	LPI Flow to CL A(High)	1. Installed 3/11/85. (AT-SB-01) 2. Location is changed, LPI Flow to CL A => LPI Flow to CL A(High) 3/13/87. (TR-LF-02)	85-03-12 87-03-20
1780	FE 50	FE840-PL	LPI Flow to CL B(High)	1. Installed 3/11/85. (AT-SB-01) 2. Location is changed, LPI Flow to CL B => LPI Flow to CL B(High) 3/13/87. (TR-LF-02)	85-03-12
1781	FE 51	FE900-EX	N2 Gas	1. Installed 3/11/85. (AT-SB-01)	87-03-20
1782	FE 52	FE011-HLA	Hot Leg A Reflux Flow	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1783	FE 53	FE151-HLB	Hot Leg B Reflux Flow	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
1784	FE 54	FE320-PV	PV Auto Bleed	1. Installed 11/21/85. (ST-NC-01) 2. Remote operation valve is installed 2/10/89.	85-11-24 89-02-13
1785	FE 55	FE781-PH	HPI Flow to HL B	1. Installed 3/01/86. (SB-CL-07)	86-03-03
1786	FE 56	FE782-PH	HPI Flow to LSB	1. Installed 3/01/86. (SB-CL-07)	86-03-03
1787	FE 57	FE783-PH	HPI Flow to CL B	1. Installed 3/01/86. (SB-CL-07)	86-03-03
1788	FE 58	FE784-PH	HPI Flow to PV Bottom	1. Installed 3/01/86. (SB-CL-07)	86-03-03
1789	FE 59	FE785-PH	HPI Flow to PV Top	1. Installed 3/01/86. (SB-CL-07)	86-03-03
1790	FE 60	FE831-PL	LPI Flow to HL A	1. Installed 3/01/86. (SB-CL-07)	86-03-03
1791	FE 61	FE841-PL	LPI Flow to HL B	1. Installed 3/01/86. (SB-CL-07)	86-03-03
1792	FE 62	FE010B-HLA	HLA Leakage(Negative)	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, 0.0 - -0.4 => 0.4 - 0.0 8/27/86. (SB-CL-09) 3. Range is changed, 0.4 - 0.0 => 0.0 - 0.4 9/30/86. (SB-CL-10) 4. Remote operation valve is installed 2/10/89.	86-07-11 86-08-30 86-10-01 89-02-13
1793	FE 63	FE150B-HLB	HLB Leakage(Negative)	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, 0.0 - -0.4 => 0.4 - 0.0 8/27/86. (SB-CL-09) 3. Range is changed, 0.4 - 0.0 => 0.0 - 0.4 9/30/86. (SB-CL-10) 4. Remote operation valve is installed 2/10/89.	86-07-11 86-08-30 86-10-01 89-02-13
1794	FE 64	FE280C-PR	PR Surge Line(Low)	1. Installed 7/10/86. (SB-CL-08) 2. Removed 5/10/87.	86-07-11 87-05-13
1795	FE 65	FE440B-SGA	SGA Main Steam Line(Low)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 7/02/87. (SB-CL-12) 3. Remote operation valve is installed 2/10/89.	86-07-11 87-07-05 89-02-13
1796	FE 66	FE451-SGA	SGA Turbine Bypass Flow	1. Installed 10/21/85. (SB-PR-01)	85-10-21
1797	FE 67	FE480B-SGB	SGB Main Steam Line(Low)	1. Installed KDG DP cell 7/10/86. (SB-CL-08) 2. Remote operation valve is installed 2/10/89.	86-07-11 89-02-13
1798	FE 68	FE491-SGB	SGB Turbine Bypass Flow	1. Installed 10/21/85. (SB-PR-01)	85-10-21
1799	FE 69	FE515-JC	JC Bleed	1. Installed 3/13/87. (TR-LF-02)	87-03-20
1800	FE 70	FE520-PAA	Auxiliary Feedwater A(High)	1. Installed KDG DP cell 3/13/87. (TR-LF-02)	87-03-20
1801	FE 71	FE520B-PAA	Auxiliary Feedwater A(Low)	1. Installed 3/13/87. (TR-LF-02) 2. Tagname and range(high) are changed 3/13/87. (TR-LF-02) Tagname : FE520-PA => FE520B-PAA Range : 1.5 => 1.0	87-03-13 87-03-20
1802	FE 72	FE530B-PAB	Auxiliary Feedwater B(Low)	1. Installed KDG DP cell 3/13/87. (TR-LF-02)	87-03-20
1803	FE 73	FE730B-PJ	PJ Delivery(Low)	1. Installed KDG DP cell 3/13/87. (TR-LF-02)	87-03-20
1804	FE 74	FE740B-PJ	Charging Flow to A(Low)	1. Installed KDG DP cell 3/13/87. (TR-LF-02)	87-03-20
1805	FE 75	FE750B-PJ	Charging Flow to B(Low)	1. Installed KDG DP cell 3/13/87. (TR-LF-02)	87-03-20
1806	FE 76	FE760B-PH	PH Delivery(Low)	1. Installed 3/13/87. (TR-LF-02) 2. Tagname and range(high) are changed 3/13/87. (TR-LF-02) Tagname : FE760-PH => FE760B-PH Range : 3.0 => 1.0	87-03-13 87-03-20
1807	FE 77	FE780B-PH	HPI Flow to Loop B(Low)	1. Installed 3/13/87. (TR-LF-02) 2. Exchanged KDG DP cell 5/03/88. (SB-CL-18)	87-03-20 88-05-11
1808	FE 78	FE820B-PL	RHR Outlet(Low)	1. Installed KDG DP cell 3/13/87. (TR-LF-02)	87-03-20
1809	FE 79	FE830B-PL	LPI Flow to CL A(Low)	1. Installed KDG DP cell 3/13/87. (TR-LF-02)	87-03-20
1810	FE 80	FE840B-PL	LPI Flow to CL B(Low)	1. Installed KDG DP cell 3/13/87. (TR-LF-02)	87-03-20
1811	FE 81	*****		1. Installed 7/25/88.	88-07-27
1812	FE 82	*****		1. Installed 7/25/88.	88-07-27
1813	FE 83	*****		1. Installed for 2nd fuel 7/12/88.	88-12-19
1881	PE 1	PE561-BU	BU No.1 Venturi	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	85-03-12 86-10-25
1882	PE 2	PE581-BU	BU No.2 Venturi	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	85-03-12 86-10-25
1883	PE 3	PE010-SGA	SGA Inlet Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	85-03-12 86-10-25
1884	PE 4	PE020-LSA	PCA Suction	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	85-03-12 86-10-25
1885	PE 5	PE030-CLA	PCA Delivery	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	85-03-12 86-10-25
1886	PE 6	PE150-SGB	SGB Inlet Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1887	PE 7	PE160-LSB	PCB Suction	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1888	PE 8	PE170-CLB	PCB Delivery	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1889	PE 9	PE290-PV	PV Upper Head	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12

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SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICA. DATE
1890	PE 10	PE280A-PV	PV Upper Plenum (High)	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	85-03-12
1891	PE 11	PE280B-PV	PV Upper Plenum (Low)	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1892	PE 12	PE270-PV	PV Lower Plenum	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1893	PE 13	PE300A-PR	PR (High Range)	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1894	PE 14	PE300B-PR	PR (Low Range)	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1895	PE 15	PE310-PR	PR RV Venturi Upstream	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1896	PE 16	PE320-PR	PR RV Venturi Downstream	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1897	PE 17	PE330-PR	PR SV Venturi Upstream	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1898	PE 18	PE340-PR	PR SV Venturi Downstream	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1899	PE 19	PE430-SGA	SGA Steam Dome	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1900	PE 20	PE440-SGA	SGA Steam Line	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1901	PE 21	PE450-SGB	SGB Steam Dome	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1902	PE 22	PE460-SGB	SGB Steam Line	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1903	PE 23	PE470-SH	Steam Header	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1904	PE 24	PE480-JC	Jet Condenser	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1905	PE 25	PE610-ST	Suppression tank	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1906	PE 26	PE360-BU	BU No.1 Orifice Upstream	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1907	PE 27	PE570-BU	BU No.1 Orifice Downstream	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1908	PE 28	PE580-BU	BU No.2 Orifice Upstream	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1909	PE 29	PE590-BU	BU No.2 Orifice Downstream	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1910	PE 30	PE600-ST	Blowdown Piping	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1911	PE 31	PE650-ACC	Cold Acc Tank	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1912	PE 32	PE660-ACH	Hot Acc Tank	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1913	PE 33	PE820-PL		1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1914	PE 34	PE900-EX	N2 Gas	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1915	PE 35	PE011-HLA	HLA Spool Piece	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1916	PE 36	PE071-CLA	CLA Spool Piece	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1917	PE 37	PE151-HLB	HLB Spool Piece	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1918	PE 38	PE211-CLB	CLB Spool Piece	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 85-03-12
1919	PE 39	PE291-PR	PR Relief Valve S.P	1. Installed 7/10/86. (SB-CL-08) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 86-07-11
1920	PE 40	PE301-PR	PR Safety Valve Line	1. Installed 7/10/86. (SB-CL-08) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 86-07-11
1921	PE 41	PE311-PR	PV-PR Vent Line	1. Installed 7/10/86. (SB-CL-08) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-10-25 86-07-11
1922	PE 42	PE461-SGA		1. Not installed.	86-10-25
1923	PE 43	PE571-BU	BU No.1 SP	1. Installed 7/10/86. (SB-CL-08) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	85-03-14 86-07-11

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SEQ NO	FUNC ID	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICA. DATE
1924	PE 44	PE591-BU	BU No.2 SP	1. Installed 7/10/86. (SB-CL-08) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-07-11 86-10-25
1925	PE 45	PE451-SGA	SGA Safety Valve Line S.P	1. Installed 7/10/86. (SB-CL-08) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	86-07-11 86-10-25
1926	PE 46	PER20-RHR	PL Delivery	1. Installed 3/11/85. (AT-SB-01) 2. Pressure measurement is changed from gauge to absolute 10/11/86. (TR-LF-01)	85-03-12 86-10-25
1927	PE 47	PE595-BU		1. Installed 7/25/88.	88-07-27
1928	PE 48	PE596-BU		1. Installed 7/25/88.	88-07-27
1929	PE 49	PE597-BU		1. Installed 7/25/88.	88-07-27
1981	MI 1	RE010-PCA	PCA (Rotation Speed)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1982	MI 2	RE150-PCB	PCB (Rotation Speed)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1983	MI 3	DPE270-PR	PR Spray (ICV270)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1984	MI 4	DPE300A-PR	PR Pressure (PCV300A)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1985	MI 5	DPE430-SGA	SGA Feedwater (FCV430)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1986	MI 6	DPE470-SGB	SGB Feedwater (FCV470)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1987	MI 7	DPE440-SGA	Turbine Bypass (FCV440)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1988	MI 8	DPE510-SH	Steam Flow (FCV510)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1989	MI 9	DPE820-PL	RHR Flow (FCV820)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1990	MI 10	DPE840-PL	RHR Temperature (TCV840)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1991	MI 11	VBE010-PCA	PCA (Vibration)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1992	MI 12	VBE150-PCB	PCB (Vibration)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1993	MI 13	TQE010-PCA	PCA (Torque)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1994	MI 14	TQE150-PCB	PCB (Torque)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1995	MI 15	AE010-PCA	PCA (Electric Current)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1996	MI 16	AE150-PCB	PCB (Electric Current)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1997	MI 17	WE270A-I	Total Core Power	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1998	MI 18	WE270B-H	Middle Heat Flux Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
1999	MI 19	WE270C-H1	High Heat Flux Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2000	MI 20	WE270D-H2	High Heat Flux Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2001	MI 21	WE270E-L1	Low Heat Flux Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2002	MI 22	WE270F-L2	Low Heat Flux Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2003	MI 23	WE270G-L3	Low Heat Flux Region	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2004	MI 24	WE280A-PR	PR Proportional Heater	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2005	MI 25	WE280B-PR	PR Base Heater	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2006	MI 26	WE010-PCA	PCA	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2007	MI 27	WE150-PCB	PCB	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2008	MI 28	F0590-SI	SI Bleed Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2009	MI 29	WE020-HLA	HLA	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2010	MI 30	WE030-LSA	LSA	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2011	MI 31	WE040-CLA	CLA	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2012	MI 32	WE160-HLB	HLB	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2013	MI 33	WE170-LSB	LSB	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2014	MI 34	WE180-CLB	CLB	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2015	MI 35	WE271A-PV	PV	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2016	MI 36	WE271B-PV	PV	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2017	MI 37	WE271C-PV	PV	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2018	MI 38	WE271D-PV	PV	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2019	MI 39	WE430A-SGA	SGA	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2020	MI 40	WE430B-SGA	SGA	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2021	MI 41	WE430C-SGA	SGA	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2022	MI 42	WE430D-SGA	SGA	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2023	MI 43	WE440A-SGA	SGA Downcomer	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2024	MI 44	WE440B-SGA	SGA Downcomer	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2025	MI 45	WE440C-SGA	SGA Downcomer	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2026	MI 46	WE440D-SGA	SGA Downcomer	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2027	MI 47	WE290-PR	PR Surge Line	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2028	MI 48	WE300-PR	PR Spray Line	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2029	MI 49	WE450A-SGB	SGB	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2030	MI 50	WE450B-SGB	SGB	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2031	MI 51	WE450C-SGB	SGB	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2032	MI 52	WE450D-SGB	SGB	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2033	MI 53	WE460A-SGB	SGB Downcomer	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2034	MI 54	WE460B-SGB	SGB Downcomer	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2035	MI 55	WE460C-SGB	SGB Downcomer	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2036	MI 56	WE460D-SGB	SGB Downcomer	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2037	MI 57	WE650A-ACC	Cold ACC Line	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2038	MI 58	WE650B-ACC	Cold ACC Line	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2039	MI 59	WE660A-ACH	Hot Acc Line	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2040	MI 60	WE660B-ACH	Hot Acc Line	1. Began to record data 12/07/88. (SB-CL-20)	85-03-12
2041	MI 61	WE301A-PR		1. Not installed.	85-03-14
2042	MI 62	OVE010A-HLA	SGA Inlet	1. Not installed.	85-03-14
2043	MI 63	OVE010B-HLA	SGA Inlet	1. Not installed.	85-03-14
2044	MI 64	OVE010C-HLA	SGA Inlet	1. Not installed.	85-03-14
2045	MI 65	OVE010D-HLA	SGA Inlet	1. Not installed.	85-03-14
2046	MI 66	OVE010E-HLA	SGA Inlet	1. Not installed.	85-03-14
2047	MI 67	OVE020A-LSA	SGA Outlet	1. Not installed.	85-03-14
2048	MI 68	OVE020B-LSA	SGA Outlet	1. Not installed.	85-03-14
2049	MI 69	OVE020C-LSA	SGA Outlet	1. Not installed.	85-03-14
2050	MI 70	OVE020D-LSA	SGA Outlet	1. Not installed.	85-03-14
2051	MI 71	OVE020E-LSA	SGA Outlet	1. Not installed.	85-03-14
2052	MI 72	OVE150A-HLB	SGB Inlet	1. Not installed.	85-03-14
2053	MI 73	OVE150B-H1B	SGB Inlet	1. Not installed.	85-03-14
2054	MI 74	OVE150C-H1B	SGB Inlet	1. Not installed.	85-03-14
2055	MI 75	OVE150D-H1B	SGB Inlet	1. Not installed.	85-03-14
2056	MI 76	OVE150E-H1B	SGB Inlet	1. Not installed.	85-03-14
2057	MI 77	OVE160A-LSB	SGB Outlet	1. Not installed.	85-03-14
2058	MI 78	OVE160B-LSB	SGB Outlet	1. Not installed.	85-03-14
2059	MI 79	OVE160C-LSB	SGB Outlet	1. Not installed.	85-03-14
2060	MI 80	OVE160D-LSB	SGB Outlet	1. Not installed.	85-03-14
2061	MI 81	OVE160E-LSB	SGB Outlet	1. Not installed.	85-03-14
2062	MI 82	VPE010-HLA	SGA Inlet	1. Installed 3/11/85. (AT-SB-01) 2. Change TV camera (NATIONAL->HAMAMATSU PHOTONICS) 9/11/87. (SB-HL-03) 3. Exchanged to thick window 5/30/88. (SB-CL-18)	85-03-15 87-09-13 88-06-02
2063	MI 83	VPE020-LSA	SGA Outlet	1. Installed 3/11/85. (AT-SB-01) 2. Change TV camera (NATIONAL->HAMAMATSU PHOTONICS) 9/11/87. (SB-HL-03)	85-03-15 87-09-13

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT W/D/Y (RUN NO.)	NOTIFICA. DATE
2064	MI 84	VPE150-HLB	SGB Inlet	1. Installed 3/11/85. (AT-SB-01) 2. Change TV camera (NATIONAL->HAMAMATSU PHOTONICS) 9/11/87. (SB-HL-03) 3. Window broken 5/19/87. (SB-PV-02) 4. Exchanged to thick window 5/30/88. (SB-CL-18)	85-03-15 87-09-13 87-05-22 88-06-02
2065	MI 85	VPE160-LSB	SGB Outlet	1. Installed 3/11/85. (AT-SB-01) 2. Change TV camera (NATIONAL->HAMAMATSU PHOTONICS) 9/11/87. (SB-HL-03)	85-03-15 87-09-13
2066	MI 86	VE010-HLA	HLA Pitot Tube	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2067	MI 87	VE011-HLA		1. Not installed.	85-03-12
2068	MI 88	VE012-LSA		1. Not installed.	85-03-12
2069	MI 89	VE150-HLB		1. Not installed.	85-03-12
2070	MI 90	VE151-HLB		1. Not installed.	85-03-12
2071	MI 91	VE152-LSB		1. Not installed.	85-03-12
2072	MI 92	VE-M-006-0C	PV Downcomer North	1. Installed 3/11/85. (AT-SB-01) 2. Disconnected to fix 4/05/88. (SB-CL-17)	85-03-12 88-04-20
2073	MI 93	VE-S-006-DC	PV Downcomer South	1. Installed 3/11/85. (AT-SB-01) 2. Disconnected to fix 4/05/88. (SB-CL-17)	85-03-12 88-04-20
2074	MI 94	VE-E-006-DC	PV Downcomer East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2075	MI 95	VE-W-006-DC	PV Downcomer West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2076	MI 96	VE571-BU	BU No.1 Pitot Tube	1. Not installed.	86-07-11
2077	MI 97	VE591-BU	BU No.2 Pitot Tube	1. Not installed.	86-07-11
2078	MI 98	VE030A-CLA	CLA Pitot Tube	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2079	MI 99	VE030B-CLA	CLA Pitot Tube	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2080	MI 100	VE030-CLA	CLA Pitot Tube	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2081	MI 101	VE010A-HLA	HLA Pitot Tube	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2082	MI 102	VE010B-HLA	HLA Pitot Tube	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2083	MI 103	VE020A-LSA	LSA Pitot Tube	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2084	MI 104	VE020B-LSA	LSA Pitot Tube	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2085	MI 105	VE020-LSA	LSA Pitot Tube	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2181	LE 1	LE270-PV	PV	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2182	LE 2	LE280-PR	PR	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2183	LE 3	LE430-SGA	SGA Wide Range	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2184	LE 4	LE440-SGA	SGA Narrow Range	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2185	LE 5	LE441-SGA	SGA Boiling Section	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2186	LE 6	LE450-SGB	SGB Wide Range	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2187	LE 7	LE460-SGB	SGB Narrow Range	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2188	LE 8	LE461-SGB	SGB Boiling Section	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2189	LE 9	LE470-JC	JC	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2190	LE 10	LE560-ST	ST Wide Range	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2191	LE 11	LE570-ST	ST Low Level	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2192	LE 12	LE580-ST	ST Middle Level	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2193	LE 13	LE590-ST	ST High Level	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2194	LE 14	LE650-ACC	Cold Acc Tank	1. Installed 3/11/85. (AT-SB-01) 2. Change the zero level for YEWCDM from EL+8703-->EL+9907 3/15/86. (SB-LS-01)	85-03-12 86-03-17
2195	LE 15	LE660-ACH	Hot Acc Tank	1. Installed 3/11/85. (AT-SB-01) 2. Change the zero level for YEWCDM from EL+8703-->EL+9907 3/15/86. (SB-LS-01)	85-03-12 86-03-17
2196	LE 16	LE820-PL	RHR	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2197	LE 17	LE830-RWST	RWST	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2198	LE 18	LE442-SGA	SGA Downcomer	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2199	LE 19	LE462-SGB	SGB Downcomer	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2200	LE 20	DLE270-PV	PV	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2201	LE 21	DLE280-PR	PR	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2202	LE 22	DLE430-SGA	SGA Wide Range	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2203	LE 23	DLE440-SGA	SGA Narrow Range	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2204	LE 24	DLE441-SGA	SGA Boiling Section	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2205	LE 25	DLE442-SGA	SGA Downcomer	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2206	LE 26	DLE450-SGB	SGB Wide Range	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2207	LE 27	DLE460-SGB	SGB Narrow Range	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2208	LE 28	DLE461-SGB	SGB Boiling Section	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2209	LE 29	DLE462-SGB	SGB Downcomer	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2210	LE 30	DLE470-JC	JC	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2211	LE 31	DLE560-ST	ST Wide Range	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2212	LE 32	DLE570-ST	ST Low Level	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2213	LE 33	DLE580-ST	ST Middle Level	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2214	LE 34	DLE590-ST	ST High Level	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2215	LE 35	DLE650-ACC	Cold Acc Tank	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2216	LE 36	DLE660-ACH	Hot Acc Tank	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2217	LE 37	DLE820-PL	RHR	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2218	LE 38	DLE830-RWST	Rwst	1. Installed for gathering voltaic data 9/22/88.	88-12-19
2251	DP 1	DPE010-HLA	Upper Plenum - HLA Nozzle	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 2/10/89.	85-03-12 89-02-13
2252	DP 2	DPE020-HLA	HLA Nozzle - HLA Break	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 2/10/89.	85-03-12 89-02-13
2253	DP 3	DPE030A-HLA	PR Surge Line (High)	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 2/10/89.	85-03-12 89-02-13
2254	DP 4	DPE040-HLA	HLA Break - SGA Inlet	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03) 3. Between hot leg and SG Inlet plenum top for SB-HL-03 and SB-CL-13. Between hot leg and SG Inlet plenum bottom after SB-CL-13.	85-03-12 87-10-03
2255	DP 5	DPE050A-SGA	SGA Inlet - Tube 3 Top	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2256	DP 6	DPE050B-SGA	SGA Inlet - Tube 2 Top	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2257	DP 7	DPE050C-SGA	SGA Inlet - Tube 1 Top	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 2/26/87. 3. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-02-28 87-10-03
2258	DP 8	DPE050D-SGA	SGA Inlet - Tube 4 Top	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2259	DP 9	DPE050E-SGA	SGA Inlet - Tube 5 Top	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2260	DP 10	DPE050F-SGA	SGA Inlet - Tube 6 Top	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2261	DP 11	DPE060A-SGA	SGA Outlet - Tube 3 Top	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2262	DP 12	DPE060B-SGA	SGA Outlet - Tube 2 Top	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2263	DP 13	DPE060C-SGA	SGA Outlet - Tube 1 Top	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 2/26/87. 3. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-02-28 87-10-03

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2264	DP 14	DPE060D-SGA	SGA Outlet - Tube 4 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2265	DP 15	DPE060E-SGA	SGA Outlet - Tube 5 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Renewed 2/26/87.	87-02-28
				3. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2266	DP 16	DPE060F-SGA	SGA Outlet - Tube 6 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2267	DP 17	DPE070-LSA	SGA Outlet - LSA Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Range is changed, -50 - 50 => -80 - 80 9/30/87. (SB-HL-03)	87-10-01
				3. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2268	DP 18	DPE080-LSA	LSA Bottom - PCA Suction	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2269	DP 19	DPE090-PCA	PCA Suction - Delivery	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2270	DP 20	DPE100-CLA	PR Spray Line	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2271	DP 21	DPE110-CLA	PCA Delivery - CLA Break	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2272	DP 22	DPE120-CLA	CLA Break - CLA Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2273	DP 23	DPE130-CLA	CLA Nozzle - Downcomer	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2274	DP 24	DPE140-HLA	Upper Plenum - Downcomer	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Range is changed, -50 - 50 => -20 - 20 5/28/87.	87-07-03
				3. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
				4. Range is changed -20 - 20 => -30 - 30 2/09/88.	88-02-12
2275	DP 25	DPE150-HLB	Upper Plenum -HLB Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2276	DP 26	DPE160-HLB	HLB Nozzle - HLB Break	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2277	DP 27	DPE170-HLB	HLB Break - SGB Break	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2278	DP 28	DPE180-HLB	SGB Break - SGB Inlet	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
				3. Between hot leg and SG inlet plenum middle before SB-HL-03.	87-12-01
2279	DP 29	DPE190A-SGB	SGB Inlet - Tube 3 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2280	DP 30	DPE190B-SGB	SGB Inlet - Tube 2 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2281	DP 31	DPE190C-SGB	SGB Inlet - Tube 1 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2282	DP 32	DPE190D-SGB	SGB Inlet - Tube 4 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2283	DP 33	DPE190E-SGB	SGB Inlet - Tube 5 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2284	DP 34	DPE190F-SGB	SGB Inlet - Tube 6 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2285	DP 35	DPE200A-SGB	SGB Outlet - Tube 3 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2286	DP 36	DPE200B-SGB	SGB Outlet - Tube 2 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2287	DP 37	DPE200C-SGB	SGB Outlet - Tube 1 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2288	DP 38	DPE200D-SGB	SGB Outlet - Tube 4 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2289	DP 39	DPE200E-SGB	SGB Outlet - Tube 5 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2290	DP 40	DPE200F-SGB	SGB Outlet - Tube 6 Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2291	DP 41	DPE210-LSB	SGB Outlet - LSB Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Range is changed, -50 - 50 => -80 - 80 9/30/87. (SB-HL-03)	87-10-01
				3. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2292	DP 42	DPE220-LSB	LSB Bottom - PCB Suction	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2293	DP 43	DPE230-PCB	PCB Suction - Delivery	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2294	DP 44	DPE240-CLB	PCB Delivery - CLB Break	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Renewed 2/26/87.	87-02-28
				3. Remote operation valve is installed 2/10/89.	89-02-13
2295	DP 45	DPE250-CLB	CLB Break - CLB Nozzle	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2296	DP 46	DPE260-CLB	CLB Nozzle - Downcomer	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2297	DP 47	DPE270-PV	PV Bottom - Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2298	DP 48	DPE280-PV	PV Lower Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2299	DP 49	DPE290-PV	Lower Core Support Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2300	DP 50	DPE300-PV	Core(Elevation -35 - 39A5)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2301	DP 51	DPE320-PV	Upper Plenum	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2302	DP 52	DPE330-PV	Upper Head	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2303	DP 53	DPE310-PV	Upper Core Support Plate	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2304	DP 54	DPE350A-PV	Guide Tube Top Orifice	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2305	DP 55	DPE350B-PV	Guide Tube Top Orifice	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2306	DP 56	DPE360-PV	PV Downcomer	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-10-03
2307	DP 57	DPE370-PV	Lower Downcomer	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2308	DP 58	DPE380-PV	Upper Downcomer	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2309	DP 59	DPE390-PV	Simulated Check Valve A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2310	DP 60	DPE400-PV	Simulated Check Valve B	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13
2311	DP 61	DPE410-PV	Check Valve Control	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Remote operation valve is installed 2/10/89.	89-02-13

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NO. I I C A. DATE
2312	DP 62	DPE332-PV	Upper Head - Downcomer	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 2/10/89.	85-03-12 89-02-13
2313	DP 63	DPE331-PV	Upper Head	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2314	DP 64	DPE560A-BU	FE560A (BU 1 High)	1. Installed 3/11/85. (AT-SB 01) 2. Range(high) and accuracy are changed 4/08/87. (SB-CL-11) Range : 500 => 245 Accuracy : 0.32 => 0.29	85-03-12 87-04-10
2315	DP 65	DPE560B-BU	FE560B (BU 1 Low)	3. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01) 2. Accuracy is changed, 0.32 => 0.29 4/08/87. (SB-CL-11)	87-10-03 85-03-12 87-04-10
2316	DP 66	DPE570-BU	BU No.1 Venturi	3. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01) 2. Range(high) is changed, 500 => 800 2/16/87. (ST-NC/SG-04)	87-10-03 85-03-12 87-04-10
2317	DP 67	DPE580A-BU	FE570A (BU 2 High)	3. Range(high) is changed, 800 => 500 4/08/87. (SB-CL-11) 1. Installed 3/11/85. (AT-SB-01)	87-04-10 85-03-12
2318	DP 68	DPE580B-BU	FE570B (BU 2 Low)	2. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB-01)	87-10-03 85-03-12
2319	DP 69	DPE590-BU	BU No.2 Venturi	2. Remote operation valve is installed 10/02/87. (SB-HL-03) 1. Installed 3/11/85. (AT-SB 01)	87-10-03 85-03-12
2320	DP 70	DPE030B-HLA	PR Surge Line (Low)	2. Range(high) is changed, 500 => 800 2/16/87. (ST-NC/SG-04) 3. Range(high) is changed, 800 => 500 4/08/87. (SB-CL-11)	87-02-20 87-04-10
2321	DP 71	DPE072-LSA	LSA (SG Side)	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 2/10/89.	85-03-12 89-02-13
2322	DP 72	DPE073-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -10 - 10 => -10 - 35 9/30/87. (SB-HL-03)	86-07-11 87-10-01
2323	DP 73	DPE074-LSA	LSA (SG Side)	3. Range is changed, -10 - 35 => 0 - 45 12/07/88. (SB-CL-20) 4. Remote operation valve is installed 2/10/89.	88-12-09 89-02-13
2324	DP 74	DPE075-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Remote operation valve is installed 2/10/89.	86-07-11 89-02-13
2325	DP 75	DPE076-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Remote operation valve is installed 2/10/89.	86-07-11 89-02-13
2326	DP 76	DPE212-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -10 - 10 => 0 - 30 12/07/88. (SB-CL-20) 3. Remote operation valve is installed 2/10/89.	88-12-09 89-02-13 86-07-11
2327	DP 77	DPE213-LSB	LSB (SG Side)	2. Range is changed, -10 - 10 => -10 - 35 9/30/87. (SB-HL-03) 3. Range is changed, -10 - 35 => 0 - 45 12/07/88. (SB-CL-20)	87-10-01 88-12-09
2328	DP 78	DPE214-LSB	LSB (SG Side)	4. Remote operation valve is installed 2/10/89. 1. Installed 7/10/86. (SB-CL-08) 2. Remote operation valve is installed 2/10/89.	89-02-13 86-07-11 89-02-13
2329	DP 79	DPE215-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Remote operation valve is installed 2/10/89.	86-07-11 89-02-13
2330	DP 80	DPE216-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Remote operation valve is installed 2/10/89.	86-07-11 89-02-13
2331	DP 81	DPE430-SGA	SGA Boiling Section	2. Range is changed, -10 - 10 => 0 - 30 12/07/88. (SB-CL-20) 3. Remote operation valve is installed 2/10/89.	88-12-09 89-02-13
2332	DP 82	DPE431-SGA	SGA Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01)	86-07-11 86-10-25
2333	DP 83	DPE432-SGA	SGA Boiling Section	3. Remote operation valve is installed 2/10/89. 1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01)	89-02-13 86-07-11 86-10-25
2334	DP 84	DPE433-SGA	SGA Boiling Section	3. Range is changed, -30 - 0 => 0 - 30 11/08/86. (ST-SG-03) 4. Range is changed, 0 - 30 => -30 - 0 12/12/86. (SB-PV-01) 5. Remote operation valve is installed 2/10/89.	86-11-10 86-12-15 89-02-13 86-07-11
2335	DP 85	DPE434-SGA	SGA Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-10-25 89-02-13 86-07-11
2336	DP 86	DPE435-SGA	SGA Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-10-25 89-02-13 86-07-11
2337	DP 87	DPE436-SGA	SGA Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-10-25 89-02-13 86-07-11
2338	DP 88	DPE437-SGA	SGA Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-10-25 89-02-13 86-07-11
2339	DP 89	DPE438-SGA	SGA Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-10-25 89-02-13 86-07-11
2340	DP 90	DPE439-SGA	SGA Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-10-25 89-02-13 86-07-11
2341	DP 91	DPE440-SGA	SGA Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Range is changed, -30 - 0 => -40 - 0 10/06/87. (SB-HL-03)	86-10-25 87-10-08 89-02-13
2342	DP 92	DPE450-SGB	SGB Boiling Section	4. Remote operation valve is installed 2/10/89. 1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01)	86-07-11 86-10-25 89-02-13
2343	DP 93	DPE451-SGB	SGB Boiling Section	3. Remote operation valve is installed 2/10/89. 1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01)	89-02-13 86-07-11 86-10-25
2344	DP 94	DPE452-SGB	SGB Boiling Section	3. Remote operation valve is installed 2/10/89. 1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01)	89-02-13 86-07-11 86-10-25
2345	DP 95	DPE453-SGB	SGB Boiling Section	3. Remote operation valve is installed 2/10/89. 1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01)	89-02-13 86-07-11 86-10-25
2346	DP 96	DPE454-SGB	SGB Boiling Section	3. Remote operation valve is installed 2/10/89. 1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01)	89-02-13 86-07-11 86-10-25

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2347	DP 97	DPE455-SGB	SGB Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-07-11 86-10-25 89-02-13
2348	DP 98	DPE456-SGB	SGB Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-07-11 86-10-25 89-02-13
2349	DP 99	DPE457-SGB	SGB Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-07-11 86-10-25 89-02-13
2350	DP 100	DPE458-SGB	SGB Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-07-11 86-10-25 89-02-13
2351	DP 101	DPE459-SGB	SGB Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Remote operation valve is installed 2/10/89.	86-07-11 86-10-25 89-02-13
2352	DP 102	DPE460-SGB	SGB Boiling Section	1. Installed 7/10/86. (SB-CL-08) 2. Range is changed, -25 - 5 => -30 - 0 10/20/86. (TR-LF-01) 3. Range is changed, -30 - 0 => -40 - 0 10/06/87. (SB-HL-03) 4. Remote operation valve is installed 2/10/89.	86-07-11 86-10-25 87-10-08 89-02-13
2353	DP 103	DPE011-HLA	HLA Spool Piece	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2354	DP 104	DPE071-CLA	CLA Spool Piece	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2355	DP 105	DPE151-HLB	HLB Spool Piece	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2356	DP 106	DPE211-CLB	CLB Spool Piece	1. Installed 3/11/85. (AT-SB-01) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	85-03-12 87-10-03
2357	DP 107	DPE571-BU	BU No.1 Spool Piece	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2358	DP 108	DPE591-BU	BU No.2 Spool Piece	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2359	DP 109	DPE041-PR	PR Diff. Press.	1. Installed KDG DP cell 7/10/86. (SB-CL-08) 2. Range(high) is changed, 6.492 => 6.1183 11/07/86. (ST-SG-03) 3. Remote operation valve is installed 2/10/89.	86-07-11 86-11-10 89-02-13
2360	DP 110	DPE042-PR	PR Diff. Press.	1. Installed KDG DP cell 7/10/86. (SB-CL-08) 2. Range(high) is changed, 7.355 => 7.34 11/07/86. (ST-SG-03) 3. Replaced 7/02/87. (SB-CL-12) 4. Remote operation valve is installed 2/10/89.	86-07-11 86-11-10 87-07-05 89-02-13
2361	DP 111	DPE043-PR	PR Diff. Press.	1. Installed KDG DP cell 7/10/86. (SB-CL-08) 2. Range(high) is changed, 3.677 => 3.67 11/07/86. (ST-SG-03) 3. Remote operation valve is installed 2/10/89.	86-11-10 89-07-13
2362	DP 112	DPE044-PR	PR Diff. Press.	1. Installed KDG DP cell 7/10/86. (SB-CL-08) 2. Range(high) is changed, 3.677 => 3.67 11/07/86. (ST-SG-03) 3. Remote operation valve is installed 2/10/89.	86-07-11 86-11-10 89-02-13
2363	DP 113	DPE045-PR	PR Diff. Press.	1. Installed KDG DP cell 7/10/86. (SB-CL-08) 2. Range(high) is changed, 11.032 => 11.0135 11/07/86. (ST-SG-03) 3. Remote operation valve is installed 2/10/89.	86-07-11 86-11-10 89-02-13
2364	DP 114	DPE046-PR	PR Diff. Press.	1. Installed KDG DP cell 7/10/86. (SB-CL-08) 2. Range(high) is changed, 7.355 => 7.342 11/07/86. (ST-SG-03) 3. Remote operation valve is installed 2/10/89.	86-07-11 86-11-10 89-02-13
2365	DP 115	DPE101-PR	PR-CLA Diff. Press.	1. Installed KDG DP cell 7/10/86. (SB-CL-08) 2. Remote operation valve is installed 2/10/89.	86-07-11 89-02-13
2366	DP 116	DPE059A-SGA	SGA I.P.-O.P (High)	1. Installed KDG DP cell 2/17/87. (ST-NC/SG-04) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-02-20 87-10-03
2367	DP 117	DPE059B-SGA	SGA I.P.-O.P (Low)	1. Installed KDG DP cell 2/17/87. (ST-NC/SG-04) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-02-20 87-10-03
2368	DP 118	DPE195A-SGB	SGB I.P.-O.P (High)	1. Installed KDG DP cell 2/17/87. (ST-NC/SG-04) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-02-20 87-10-03
2369	DP 119	DPE195B-SGB	SGB I.P.-O.P (Low)	1. Installed KDG DP cell 2/17/87. (ST-NC/SG-04) 2. Remote operation valve is installed 10/02/87. (SB-HL-03)	87-02-20 87-10-03
2370	DP 120	DPE056-SGA	SGA Plenum Diff.Press.	1. Installed 9/30/87. (SB-HL-03) 2. Remote operation valve is installed 10/02/87. (SB-HL-03) 3. Low and High are changed after SB-HL-03.	87-10-01 87-10-03 87-11-01
2371	DP 121	DPE057-SGA	Primary-Secondary	1. Not installed. 2. Attached DP cell 12/87. (SB-CL-14) 3. Remote operation valve is installed 2/10/89.	87-10-01 87-12-20 89-02-13
2372	DP 122	DPE196-SGB	SGB Plenum Diff.Press.	1. Installed 9/30/87. (SB-HL-03) 2. Remote operation valve is installed 10/02/87. (SB-HL-03) 3. Low and High are changed after SB-CL-03.	87-10-01 87-10-03 87-11-01
2373	DP 123	DPE197-SGB	Primary-Secondary	1. Not installed. 2. Attached DP cell 12/87. (SB-CL-14) 3. Remote operation valve is installed 2/10/89.	87-10-01 87-12-20 89-02-13
2374	DP 124	DPE301-PV	Core(Elevation+35+409)	1. Installed for 2nd fuel 12/07/88. (SB-CL-20) 2. Remote operation valve is installed 2/10/89.	88-12-19 89-02-13
2375	DP 125	DPE302-PV	Core(Elevation+409+815)	1. Installed for 2nd fuel 12/07/88. (SB-CL-20) 2. Remote operation valve is installed 2/10/89.	88-12-19 89-02-13
2376	DP 126	DPE303-PV	Core(Elevation+815+1221)	1. Installed for 2nd fuel 12/07/88. (SB-CL-20) 2. Remote operation valve is installed 2/10/89.	88-12-19 89-02-13
2377	DP 127	DPE304-PV	Core(Elevation+1221+1627)	1. Installed for 2nd fuel 12/07/88. (SB-CL-20) 2. Remote operation valve is installed 2/10/89.	88-12-19 89-02-13
2378	DP 128	DPE305-PV	Core(Elevation+1627+2033)	1. Installed for 2nd fuel 12/07/88. (SB-CL-20) 2. Remote operation valve is installed 2/10/89.	88-12-19 89-02-13
2379	DP 129	DPE306-PV	Core(Elevation+2033+2439)	1. Installed for 2nd fuel 12/07/88. (SB-CL-20) 2. Remote operation valve is installed 2/10/89.	88-12-19 89-02-13
2380	DP 130	DPE307-PV	Core(Elevation+2439+2845)	1. Installed for 2nd fuel 12/07/88. (SB-CL-20) 2. Remote operation valve is installed 2/10/89.	88-12-19 89-02-13
2381	DP 131	DPE308-PV	Core(Elevation+2845+3251)	1. Installed for 2nd fuel 12/07/88. (SB-CL-20) 2. Remote operation valve is installed 2/10/89.	88-12-19 89-02-13
2382	DP 132	DPE309-PV	Core(Elevation+3251+3945)	1. Installed for 2nd fuel 12/07/88. (SB-CL-20) 2. Remote operation valve is installed 2/10/89.	88-12-19 89-02-13
2383	DP 133	DPE333-PV	UpperH(Elevation6634-8860)	1. Installed for 2nd fuel 12/07/88. (SB-CL-20) 2. Remote operation valve is installed 2/10/89.	88-12-19 89-02-13
2451	MF 1	MFE011A-HLA	HLA Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2452	MF 2	MFE011B-HLA	HLA Spool Piece Side	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2453	MF 3	MFE011C-HLA	HLA Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2454	MF 4	MFE051A-LSA	LSA Spool Piece East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2455	MF 5	MFE051B-LSA	LSA Spool Piece South	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2456	MF 6	MFE051C-LSA	LSA Spool Piece West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2457	MF 7	MFE071A-CLA	CLA Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2458	MF 8	MFE071B-CLA	CLA Spool Piece Side	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2459	MF 9	MFE071C-CLA	CLA Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12

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SEQ NO	FUNC ID	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIF.CA. DATE
2460	MF 10	MFE151A-HLB	HLB Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2461	MF 11	MFE151B-HLB	HLB Spool Piece Side	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2462	MF 12	MFE151C-HLB	HLB Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2463	MF 13	MFE191A-LSB	LSB Spool Piece West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2464	MF 14	MFE191B-LSB	LSB Spool Piece North	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2465	MF 15	MFE191C-LSB	LSB Spool Piece East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2466	MF 16	MFE211A-CLB	CLB Spool Piece Top	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2467	MF 17	MFE211B-CLB	CLB Spool Piece Side	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2468	MF 18	MFE211C-CLB	CLB Spool Piece Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2469	MF 19	MFE291A-PR	PR Relief Valve Line(High)	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2470	MF 20	MFE291B-PR	PR Relief Valve Line(Low)	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2471	MF 21	MFE021-HLA	SGA Inlet	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2472	MF 22	MFE051D-LSA	LSA Spool Piece North(Low)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2473	MF 23	MFE161-HLB	SGB Inlet	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2474	MF 24	MFE191D-LSB	LSB Spool Piece South(Low)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2475	MF 25	MFE-N-006-DC	PV Downcomer DTT North	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Disconnected to fix 4/05/88. (SB-CL-17)	88-04-20
2476	MF 26	MFE-S-006-DC	PV Downcomer DTT South	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Disconnected to fix 4/05/88. (SB-CL-17)	88-04-20
2477	MF 27	MFE-E-006-DC	PV Downcomer DTT East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2478	MF 28	MFE-W-006-DC	PV Downcomer DTT West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2479	MF 29	MFE301B-PR	PR Safety Valve Line(Low)	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2480	MF 30	MFT161-HLB	SGB Inlet	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2481	MF 31	MFE571A-BU	BU No.1 S.P (High)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Input range is changed, -5 - 5 => -10 - 10 1/23/86. (SB-CL-06)	86-01-25
				3. Data stored for MFE571A-BU between SB-PV-02 and SB-CL-15.	89-03-07
2482	MF 32	MFE571B-BU	BU No.1 S.P (Low)	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Input range is changed, -5 - 5 => -10 - 10 1/23/86. (SB-CL-06)	86-01-25
				3. Data stored for MFE571B-BU between SB-PV-02 and SB-CL-15.	89-03-07
2483	MF 33	MFE591A-BU	BU No.2 SP (High)	1. Installed 7/10/86. (SB-CL-08)	86-07-12
				2. Data failed between SB-CL-16 and SB-HL-05.	89-03-07
2484	MF 34	MFE591B-BU	BU No.2 SP (Low)	1. Installed 7/10/86. (SB-CL-08)	86-07-12
				2. Data failed between SB-CL-16 and SB-HL-05.	89-03-07
2485	MF 35	MFE061A-LSA	LSA Spool Piece	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2486	MF 36	MFE061B-LSA	LSA Spool Piece	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2487	MF 37	MFE201A-LSB	LSB Spool Piece	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2488	MF 38	MFE201B-LSB	LSB Spool Piece	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2489	MF 39	MFE301A-PR	PR Safety Valve Line(High)	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2490	MF 40	MFT211A-CLB	CLB S.P Top	1. Not installed.	85-03-14
2491	MF 41	MFT211B-CLB	CLB S.P Side	1. Not installed.	85-03-14
2492	MF 42	MFT211C-CLB	CLB S.P Bottom	1. Not installed.	85-03-14
2493	MF 43	MFE311A-PR	PV-PR Vent Line S.P Top	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2494	MF 44	MFE311B-PR	PV-PR Vent Line Bottom	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2495	MF 45	MFT011A-HLA	HLA S.P Top	1. Not installed.	86-07-10
2496	MF 46	MFT011B-HLA	HLA S.P Side	1. Not installed.	86-07-10
2497	MF 47	MFT011C-HLA	HLA S.P Bottom	1. Not installed.	86-07-10
2498	MF 48	MFT021-HLA	SGA Inlet	1. Not installed.	86-07-10
2499	MF 49	MFT051A-LSA	LSA Line North	1. Not installed.	86-07-10
2500	MF 50	MFT051B-LSA	LSA Line South	1. Not installed.	86-07-10
2501	MF 51	MFT051C-LSA	LSA Line East	1. Not installed.	86-07-10
2502	MF 52	MFT051D-LSA	SGA Outlet	1. Not installed.	86-07-10
2503	MF 53	MFT071A-CLA	CLA S.P TOP	1. Not installed.	86-07-10
2504	MF 54	MFT071B-CLA	CLA S.P Side	1. Not installed.	86-07-10
2505	MF 55	MFT071C-CLA	CLA S.P Bottom	1. Not installed.	86-07-10
2506	MF 56	MFT151A-HLB	HLB S.P Top	1. Not installed.	86-07-10
2507	MF 57	MFT151B-HLB	HLB S.P Side	1. Not installed.	86-07-10
2508	MF 58	MFT151C-HLB	HLB S.P Bottom	1. Not installed.	86-07-10
2509	MF 59	MFT191A-LSB	LSB Line North	1. Not installed.	86-07-10
2510	MF 60	MFT191B-LSB	LSB Line South	1. Not installed.	86-07-10
2511	MF 61	MFT191C-LSB	LSB Line East	1. Not installed.	86-07-10
2512	MF 62	MFT191D-LSB	SGB Outlet	1. Not installed.	86-07-10
2531	DE 1	DE011A-HLA	HLA S.P Beam A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2532	DE 2	DE011B-HLA	HLA S.P Beam B	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2533	DE 3	DE011C-HLA	HLA S.P Beam C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2534	DE 4	DE051A-LSA	LSA SP Beam A	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2535	DE 5	DE051B-LSA	LSA SP Beam B	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2536	DE 6	DE051C-LSA	LSA SP Beam C	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2537	DE 7	DE071A-CLA	CLA S.P Beam A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2538	DE 8	DE071B-CLA	CLA S.P Beam B	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2539	DE 9	DE071C-CLA	CLA S.P Beam C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2540	DE 10	DE151A-HLB	HLB S.P Beam A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2541	DE 11	DE151B-HLB	HLB S.P Beam B	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2542	DE 12	DE151C-HLB	HLB S.P Beam C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Failed 6/29/88. (SB-CL-19 & ST-NC/SG-05)	88-07-01
2543	DE 13	DE191A-LSB	LSB SP Beam A	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2544	DE 14	DE191B-LSB	LSB SP Beam B	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2545	DE 15	DE191C-LSB	LSB SP Beam C	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2546	DE 16	DE211A-CLB	CLB S.P Beam A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2547	DE 17	DE211B-CLB	CLB S.P Beam B	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2548	DE 18	DE211C-CLB	CLB S.P Beam C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2549	DE 19	DE052-LSA	PCA Suction	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2550	DE 20	DE192-LSB	PCB Suction	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2551	DE 21	DE281-PR	PR Surge Line	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2552	DE 22	DE291-PR	PR Relief Valve Line	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2553	DE 23	DE301-PR	PR Safety Valve Line	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2554	DE 24	DE311-PR	PV-PR Vent Line	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2555	DE 25	DE431-SGA	SGA Downcomer	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2556	DE 26	DE471-SGB	SGB Downcomer	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2557	DE 27	DE451A-SGA	SGA Safety S.P Upper Beam	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2558	DE 28	DE451B-SGA	SGA Safety S.P Center Beam	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2559	DE 29	DE451C-SGA	SGA Safety S.P Bottom Beam	1. Installed 7/10/86. (SB-CL-08)	86-07-12
2560	DE 30	DE571A-BU	BU No.1 S.P Beam A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2561	DE 31	DE571B-BU	BU No.1 S.P Beam B	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2562	DE 32	DE571C-BU	BU No.1 S.P Beam C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2563	DE 33	DE591A-BU	BU No.2 SP Beam A	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2564	DE 34	DE591B-BU	BU No.2 SP Beam B	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2565	DE 35	DE591C-BU	BU No.2 SP Beam C	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2611	CP 1	CPE-E-012C-DC	Downcomer E.L.-1.2m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2612	CP 2	CPE-E-006C-DC	Downcomer E.L.-0.6m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2613	CP 3	CPE-E000C-DC	Downcomer E.L.0.0m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12

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SEQ NO	FUNC ID	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICA. DATE
2614	CP 4	CPE-E006C-DC	Downcomer E.L.0.6m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2615	CP 5	CPE-E012C-DC	Downcomer E.L.1.2m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2616	CP 6	CPE-E018C-DC	Downcomer E.L.1.8m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2617	CP 7	CPE-E024C-DC	Downcomer E.L.2.4m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2618	CP 8	CPE-E031C-DC	Downcomer E.L.3.1m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2619	CP 9	CPE-E037C-DC	Downcomer E.L.3.7m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2620	CP 10	CPE-E043C-DC	Downcomer E.L.4.3m,East	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 2/01/89.	85-03-12 89-02-03
2621	CP 11	CPE-E049C-DC	Downcomer E.L.4.9m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2622	CP 12	CPE-E055C-DC	Downcomer E.L.5.5m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2623	CP 13	CPE-E061C-DC	Downcomer E.L.6.1m,East	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01)	85-03-12 86-12-12
2624	CP 14	CPE-E067C-DC	Downcomer E.L.6.7m,East	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 4/08/87. (SB-CL-11)	85-03-12 87-04-10
2625	CP 15	CPE-E066F-UH	Upper Head E.L.6.6m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2626	CP 16	CPE-E066F-UH	Upper Head E.L.6.6m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2627	CP 17	CPE-E069F-UH	Upper Head E.L.6.9m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2628	CP 18	CPE-E069F-UH	Upper Head E.L.6.9m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2629	CP 19	CPE-E072F-UH	Upper Head E.L.7.2m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2630	CP 20	CPE-E072F-UH	Upper Head E.L.7.2m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2631	CP 21	CPE-E075F-UH	Upper Head E.L.7.5m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2632	CP 22	CPE-E075F-UH	Upper Head E.L.7.5m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2633	CP 23	CPE-E078F-UH	Upper Head E.L.7.8m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2634	CP 24	CPE-E078F-UH	Upper Head E.L.7.8m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2635	CP 25	CPE-E081F-UH	Upper Head E.L.8.1m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2636	CP 26	CPE-E081F-UH	Upper Head E.L.8.1m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2637	CP 27	CPE-E066H-GT	Guide Tube E.L.6.6m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2638	CP 28	CPE-E066H-GT	Guide Tube E.L.6.6m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2639	CP 29	CPE-E072H-GT	Guide Tube E.L.7.2m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2640	CP 30	CPE-E072H-GT	Guide Tube E.L.7.2m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2641	CP 31	CPE-E078H-GT	Guide Tube E.L.7.8m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2642	CP 32	CPE-E078H-GT	Guide Tube E.L.7.8m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2643	CP 33	CPE-E043H-GT	Guide Tube E.L.4.3m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2644	CP 34	CPE-E043H-GT	Guide Tube E.L.4.3m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2645	CP 35	CPE-E044H-GT	Guide Tube E.L.4.4m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2646	CP 36	CPE-E044H-GT	Guide Tube E.L.4.4m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2647	CP 37	CPE-E048H-GT	Guide Tube E.L.4.8m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2648	CP 38	CPE-E048H-GT	Guide Tube E.L.4.8m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2649	CP 39	CPE-E054H-GT	Guide Tube E.L.5.4m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2650	CP 40	CPE-E054H-GT	Guide Tube E.L.5.4m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2651	CP 41	CPE-E060H-GT	Guide Tube E.L.6.0m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2652	CP 42	CPE-E060H-GT	Guide Tube E.L.6.0m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2653	CP 43	CPE-E042-UP	Upper Plenum E.L.4.2m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2654	CP 44	CPE-E042-UP	Upper Plenum E.L.4.2m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2655	CP 45	CPE-E043-UP	Upper Plenum E.L.4.3m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2656	CP 46	CPE-E043-UP	Upper Plenum E.L.4.3m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2657	CP 47	CPE-E044-UP	Upper Plenum E.L.4.4m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2658	CP 48	CPE-E044-UP	Upper Plenum E.L.4.4m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2659	CP 49	CPE-E048-UP	Upper Plenum E.L.4.8m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2660	CP 50	CPE-E048-UP	Upper Plenum E.L.4.8m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2661	CP 51	CPE-E051-UP	Upper Plenum E.L.5.1m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2662	CP 52	CPE-E051-UP	Upper Plenum E.L.5.1m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2663	CP 53	CPE-E054-UP	Upper Plenum E.L.5.4m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2664	CP 54	CPE-E054-UP	Upper Plenum E.L.5.4m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2665	CP 55	CPE-E057-UP	Upper Plenum E.L.5.7m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2666	CP 56	CPE-E057-UP	Upper Plenum E.L.5.7m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2667	CP 57	CPE-E060-UP	Upper Plenum E.L.6.0m,East	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2668	CP 58	CPE-E060-UP	Upper Plenum E.L.6.0m,West	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2669	CP 59	CPE-C-021-LP	Lower Plenum E.L.-2.1m	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2670	CP 60	CPE-C-018-LP	Lower Plenum E.L.-1.8m	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2671	CP 61	CPE-C-015-LP	Lower Plenum E.L.-1.5m	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2672	CP 62	CPE-C-012-LP	Lower Plenum E.L.-1.2m	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2673	CP 63	CPE-C-009-LP	Lower Plenum E.L.-0.9m	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2674	CP 64	CPE-C-006-LP	Lower Plenum E.L.-0.6m	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2675	CP 65	CPE-C-005-LP	Lower Plenum E.L.-0.5m	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2676	CP 66	CPE-C-003-LP	Lower Plenum E.L.-0.3m	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2677	CP 67	CPE-C-002-LP	Lower Plenum E.L.-0.2m	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2678	CP 68	CPE-B08001	In-Core West Pos.1	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2679	CP 69	CPE-B08002	In-Core West Pos.2	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2680	CP 70	CPE-B08003	In-Core West Pos.3	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2681	CP 71	CPE-B08004	In-Core West Pos.4	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2682	CP 72	CPE-B08005	In-Core West Pos.5	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2683	CP 73	CPE-B08006	In-Core West Pos.6	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2684	CP 74	CPE-B08007	In-Core West Pos.7	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2685	CP 75	CPE-B08008	In-Core West Pos.8	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2686	CP 76	CPE-B08009	In-Core West Pos.9	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2687	CP 77	CPE-B15661	B15 Rod(6,6) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2688	CP 78	CPE-B15662	B15 Rod(6,6) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2689	CP 79	CPE-B15663	B15 Rod(6,6) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2690	CP 80	CPE-B15664	B15 Rod(6,6) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2691	CP 81	CPE-B15665	B15 Rod(6,6) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2692	CP 82	CPE-B15666	B15 Rod(6,6) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2693	CP 83	CPE-B15667	B15 Rod(6,6) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2694	CP 84	CPE-B15668	B15 Rod(6,6) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2695	CP 85	CPE-B15669	B15 Rod(6,6) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2696	CP 86	CPE-B04001	In-Core East Pos.1	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2697	CP 87	CPE-B04002	In-Core East Pos.2	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09
2698	CP 88	CPE-B04003	In-Core East Pos.3	1. Installed 3/11/85. (AT-SB-01) 2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	85-03-12 88-12-09

SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICA. DATE
2699	CP 89	CPE-B04004	In-Core East Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-09
2700	CP 90	CPE-B04005	In-Core East Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-09
2701	CP 91	CPE-B04006	In-Core East Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-09
2702	CP 92	CPE-B04007	In-Core East Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-09
2703	CP 93	CPE-B04008	In-Core East Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-09
2704	CP 94	CPE-B04009	In-Core East Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-09
2705	CP 95	CPE-B20621	B20 Rod(6,2) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2706	CP 96	CPE-B20622	B20 Rod(6,2) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2707	CP 97	CPE-B20623	B20 Rod(6,2) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2708	CP 98	CPE-B20624	B20 Rod(6,2) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2709	CP 99	CPE-B20625	B20 Rod(6,2) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2710	CP 100	CPE-B20626	B20 Rod(6,2) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2711	CP 101	CPE-B20627	B20 Rod(6,2) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2712	CP 102	CPE-B20628	B20 Rod(6,2) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2713	CP 103	CPE-B20629	B20 Rod(6,2) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2714	CP 104	CPE-B22621	B22 Rod(6,2) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2715	CP 105	CPE-B22622	B22 Rod(6,2) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2716	CP 106	CPE-B22623	B22 Rod(6,2) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2717	CP 107	CPE-B22624	B22 Rod(6,2) Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2718	CP 108	CPE-B22625	B22 Rod(6,2) Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2719	CP 109	CPE-B22626	B22 Rod(6,2) Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2720	CP 110	CPE-B22627	B22 Rod(6,2) Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2721	CP 111	CPE-B22628	B22 Rod(6,2) Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2722	CP 112	CPE-B22629	B22 Rod(6,2) Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2723	CP 113	CPE-211-PR	Pressurizer Pos.10	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed 3/01/86.	86-03-05
2724	CP 114	CPE-207-PR	Pressurizer Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Renewed 2/01/89.	89-02-03
2725	CP 115	CPE-204-PR	Pressurizer Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed 3/01/86.	86-03-05
2726	CP 116	CPE-200-PR	Pressurizer Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed 3/01/86.	86-03-05
2727	CP 117	CPE-196-PR	Pressurizer Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed 3/01/86.	86-03-05
2728	CP 118	CPE-192-PR	Pressurizer Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2729	CP 119	CPE-189-PR	Pressurizer Pos.4	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Renewed 2/01/89.	89-02-03
2730	CP 120	CPE-185-PR	Pressurizer Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed 3/01/86.	86-03-05
2731	CP 121	CPE-181-PR	Pressurizer Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Renewed 2/01/89.	89-02-03
2732	CP 122	CPE-177-PR	Pressurizer Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Removed 3/01/86.	86-03-05
2733	CP 123	CPE-086C-SGA	SGA Boiling Section Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Replaced 12/10/87. (SB-CL-14)	87-12-20
				3. Renewed 2/01/89.	89-02-03
2734	CP 124	CPE-099C-SGA	SGA Boiling Section Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2735	CP 125	CPE-112C-SGA	SGA Boiling Section Pos.5	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2736	CP 126	CPE-125C-SGA	SGA Boiling Section Pos.6	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2737	CP 127	CPE-137C-SGA	SGA Boiling Section Pos.7	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. renewed 12/10/86. (SB-PV-01)	86-12-12
2738	CP 128	CPE-150C-SGA	SGA Boiling Section Pos.8	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Replaced 12/10/87. (SB-CL-14)	87-12-20
2739	CP 129	CPE-163C-SGA	SGA Boiling Section Pos.9	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Replaced 12/10/87. (SB-CL-14)	87-12-20
2740	CP 130	CPE-178C-SGA	SGA Boiling Section Pos.11	1. Installed 3/11/85. (AT-SB-01)	85-03-12
				2. Replaced 12/10/87. (SB-CL-14)	87-12-20
				3. Renewed 2/01/89.	89-02-03
2741	CP 131	CPE-192F-SGA	SGA Boiling Section Pos.12	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2742	CP 132	CPE-208F-SGA	Separator Pos.13	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2743	CP 133	CPE-192C-SGA	Downcomer Pos.12	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2744	CP 134	CPE-208C-SGA	Downcomer Pos.13	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2745	CP 135	CPE-223C-SGA	Dryer Pos.14	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2746	CP 136	CPE-245C-SGA	Steam Dome Pos.15	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2747	CP 137	CPE-EX0861-SGA	SGA U-Tube(1,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2748	CP 138	CPE-EX0861-SGA	SGA U-Tube(1,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2749	CP 139	CPE-EX0862-SGA	SGA U-Tube(2,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2750	CP 140	CPE-EX0862-SGA	SGA U-Tube(2,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2751	CP 141	CPE-EX0863-SGA	SGA U-Tube(3,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2752	CP 142	CPE-EX0863-SGA	SGA U-Tube(3,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2753	CP 143	CPE-EX0864-SGA	SGA U-Tube(4,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2754	CP 144	CPE-EX0864-SGA	SGA U-Tube(4,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2755	CP 145	CPE-EX0865-SGA	SGA U-Tube(5,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2756	CP 146	CPE-EX0865-SGA	SGA U-Tube(5,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2757	CP 147	CPE-EX0866-SGA	SGA U-Tube(6,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2758	CP 148	CPE-EX0866-SGA	SGA U-Tube(6,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2759	CP 149	CPE-EX0931-SGA	SGA U-Tube(1,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2760	CP 150	CPE-EX0932-SGA	SGA U-Tube(2,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2761	CP 151	CPE-EX0933-SGA	SGA U-Tube(3,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2762	CP 152	CPE-EX0934-SGA	SGA U-Tube(4,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2763	CP 153	CPE-EX0935-SGA	SGA U-Tube(5,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2764	CP 154	CPE-EX0936-SGA	SGA U-Tube(6,IN) Pos.2	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2765	CP 155	CPE-EX0991-SGA	SGA U-Tube(1,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2766	CP 156	CPE-EX0991-SGA	SGA U-Tube(1,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2767	CP 157	CPE-EX0992-SGA	SGA U-Tube(2,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2768	CP 158	CPE-EX0992-SGA	SGA U-Tube(2,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2769	CP 159	CPE-EX0993-SGA	SGA U-Tube(3,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2770	CP 160	CPE-EX0993-SGA	SGA U-Tube(3,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2771	CP 161	CPE-EX0994-SGA	SGA U-Tube(4,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2772	CP 162	CPE-EX0994-SGA	SGA U-Tube(4,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2773	CP 163	CPE-EX0995-SGA	SGA U-Tube(5,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2774	CP 164	CPE-EX0995-SGA	SGA U-Tube(5,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2775	CP 165	CPE-EX0996-SGA	SGA U-Tube(6,IN) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2776	CP 166	CPE-EX0996-SGA	SGA U-Tube(6,EX) Pos.3	1. Installed 3/11/85. (AT-SB-01)	85-03-12

SEQ NO	FUNC 10.	TAG NAME	LOCATION	EVENT	M/D/Y (RUN NO.)	NOI/ICA DATE
2777	EP 167	CPE-IN1051-SGA	SGA U-Tube(1,IN) Pos.4	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2778	CP 168	CPE-IN1052-SGA	SGA U-Tube(2,IN) Pos.4	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2779	CP 169	CPE-IN1053-SGA	SGA U-Tube(3,IN) Pos.4	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2780	CP 170	CPE-IN1054-SGA	SGA U-Tube(4,IN) Pos.4	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2781	CP 171	CPE-IN1055-SGA	SGA U-Tube(5,IN) Pos.4	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2782	CP 172	CPE-IN1056-SGA	SGA U-Tube(6,IN) Pos.4	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2783	CP 173	CPE-IN1121-SGA	SGA U-Tube(1,IN) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2784	CP 174	CPE-EX1121-SGA	SGA U-Tube(1,EX) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2785	CP 175	CPE-IN1122-SGA	SGA U-Tube(2,IN) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2786	CP 176	CPE-EX1122-SGA	SGA U-Tube(2,EX) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2787	CP 177	CPE-IN1123-SGA	SGA U-Tube(3,IN) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2788	CP 178	CPE-EX1123-SGA	SGA U-Tube(3,EX) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2789	CP 179	CPE-IN1124-SGA	SGA U-Tube(4,IN) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2790	CP 180	CPE-EX1124-SGA	SGA U-Tube(4,EX) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2791	CP 181	CPE-IN1125-SGA	SGA U-Tube(5,IN) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2792	CP 182	CPE-EX1125-SGA	SGA U-Tube(5,EX) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2793	CP 183	CPE-IN1126-SGA	SGA U-Tube(6,IN) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2794	CP 184	CPE-EX1126-SGA	SGA U-Tube(6,EX) Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2795	CP 185	CPE-IN1251-SGA	SGA U-Tube(1,IN) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2796	CP 186	CPE-EX1251-SGA	SGA U-Tube(1,EX) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2797	CP 187	CPE-IN1252-SGA	SGA U-Tube(2,IN) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2798	CP 188	CPE-EX1252-SGA	SGA U-Tube(2,EX) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2799	CP 189	CPE-IN1253-SGA	SGA U-Tube(3,IN) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2800	CP 190	CPE-EX1253-SGA	SGA U-Tube(3,EX) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2801	CP 191	CPE-IN1254-SGA	SGA U-Tube(4,IN) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2802	CP 192	CPE-EX1254-SGA	SGA U-Tube(4,EX) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2803	CP 193	CPE-IN1255-SGA	SGA U-Tube(5,IN) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2804	CP 194	CPE-EX1255-SGA	SGA U-Tube(5,EX) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2805	CP 195	CPE-IN1256-SGA	SGA U-Tube(6,IN) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2806	CP 196	CPE-EX1256-SGA	SGA U-Tube(6,EX) Pos.6	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2807	CP 197	CPE-IN1371-SGA	SGA U-Tube(1,IN) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2808	CP 198	CPE-EX1371-SGA	SGA U-Tube(1,EX) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2809	CP 199	CPE-IN1372-SGA	SGA U-Tube(2,IN) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2810	CP 200	CPE-EX1372-SGA	SGA U-Tube(2,EX) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2811	CP 201	CPE-IN1373-SGA	SGA U-Tube(3,IN) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2812	CP 202	CPE-EX1373-SGA	SGA U-Tube(3,EX) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2813	CP 203	CPE-IN1374-SGA	SGA U-Tube(4,IN) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2814	CP 204	CPE-EX1374-SGA	SGA U-Tube(4,EX) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2815	CP 205	CPE-IN1375-SGA	SGA U-Tube(5,IN) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2816	CP 206	CPE-EX1375-SGA	SGA U-Tube(5,EX) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2817	CP 207	CPE-IN1376-SGA	SGA U-Tube(6,IN) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2818	CP 208	CPE-EX1376-SGA	SGA U-Tube(6,EX) Pos.7	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2819	CP 209	CPE-IN1501-SGA	SGA U-Tube(1,IN) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2820	CP 210	CPE-EX1501-SGA	SGA U-Tube(1,EX) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2821	CP 211	CPE-IN1502-SGA	SGA U-Tube(2,IN) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2822	CP 212	CPE-EX1502-SGA	SGA U-Tube(2,EX) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2823	CP 213	CPE-IN1503-SGA	SGA U-Tube(3,IN) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2824	CP 214	CPE-EX1503-SGA	SGA U-Tube(3,EX) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2825	CP 215	CPE-IN1504-SGA	SGA U-Tube(4,IN) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2826	CP 216	CPE-EX1504-SGA	SGA U-Tube(4,EX) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2827	CP 217	CPE-IN1505-SGA	SGA U-Tube(5,IN) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2828	CP 218	CPE-EX1505-SGA	SGA U-Tube(5,EX) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2829	CP 219	CPE-IN1506-SGA	SGA U-Tube(6,IN) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2830	CP 220	CPE-EX1506-SGA	SGA U-Tube(6,EX) Pos.8	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2831	CP 221	CPE-IN1632-SGA	SGA U-Tube(2,IN) Pos.9	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2832	CP 222	CPE-EX1632-SGA	SGA U-Tube(2,EX) Pos.9	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2833	CP 223	CPE-IN1633-SGA	SGA U-Tube(3,IN) Pos.9	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2834	CP 224	CPE-EX1633-SGA	SGA U-Tube(3,EX) Pos.9	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2835	CP 225	CPE-IN1634-SGA	SGA U-Tube(4,IN) Pos.9	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2836	CP 226	CPE-EX1634-SGA	SGA U-Tube(4,EX) Pos.9	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2837	CP 227	CPE-IN1635-SGA	SGA U-Tube(5,IN) Pos.9	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2838	CP 228	CPE-EX1635-SGA	SGA U-Tube(5,EX) Pos.9	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2839	CP 229	CPE-IN1701-SGA	SGA U-Tube(1,IN) Pos.10	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2840	CP 230	CPE-IN1706-SGA	SGA U-Tube(6,IN) Pos.10	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2841	CP 231	CPE-IN1782-SGA	SGA U-Tube(2,IN) Pos.10	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2842	CP 232	CPE-IN1783-SGA	SGA U-Tube(3,IN) Pos.10	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2843	CP 233	CPE-IN1863-SGA	SGA U-Tube(3,IN) Pos.11	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2844	CP 234	CPE-IN1864-SGA	SGA U-Tube(4,IN) Pos.11	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2845	CP 235	CPE-086C-SGB	SGB Boiling Section Pos.1	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2846	CP 236	CPE-099C-SGB	SGB Boiling Section Pos.3	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2847	CP 237	CPE-112C-SGB	SGB Boiling Section Pos.5	1. Installed	3/11/85. (AT-SB-01)	85-03-12
2848	CP 238	CPE-125C-SGB	SGB Boiling Section Pos.6	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 2/01/89.		85-03-12 89-02-03
2849	CP 239	CPE-137C-SGB	SGB Boiling Section Pos.7	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 2/01/89.		85-03-12 89-02-03
2850	CP 240	CPE-150C-SGB	SGB Boiling Section Pos.8	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 2/01/89.		85-03-12 89-02-03
2851	CP 241	CPE-163C-SGB	SGB Boiling Section Pos.9	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/87. (SB-CL-14)		85-03-12 87-12-20
2852	CP 242	CPE-178C-SGB	SGB Boiling Section Pos.11	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2853	CP 243	CPE-192F-SGB	SGB Boiling Section Pos.12	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2854	CP 244	CPE-208F-SGB	SGB Separator Pos.13	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2855	CP 245	CPE-192C-SGB	SGB Downcomer Pos.12	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2856	CP 246	CPE-208C-SGB	SGB Downcomer Pos.13	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2857	CP 247	CPE-223C-SGB	SGB Dryer Pos.14	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/87. (SB-CL-14) 3. Renewed 12/10/86. (SB-PV-01)		85-03-12 87-12-20 86-12-12
2858	CP 248	CPE-245C-SGB	SGB Steam Dome Pos.15	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2859	CP 249	CPE-IN0861-SGB	SGB U-Tube(1,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2860	CP 250	CPE-EX0861-SGB	SGB U-Tube(1,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2861	CP 251	CPE-IN0862-SGB	SGB U-Tube(2,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2862	CP 252	CPE-EX0862-SGB	SGB U-Tube(2,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2863	CP 253	CPE-IN0863-SGB	SGB U-Tube(3,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2864	CP 254	CPE-EX0863-SGB	SGB U-Tube(3,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2865	CP 255	CPE-IN0864-SGB	SGB U-Tube(4,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2866	CP 256	CPE-EX0864-SGB	SGB U-Tube(4,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2867	CP 257	CPE-IN0865-SGB	SGB U-Tube(5,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2868	CP 258	CPE-EX0865-SGB	SGB U-Tube(5,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2869	CP 259	CPE-IN0866-SGB	SGB U-Tube(6,IN) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12
2870	CP 260	CPE-EX0866-SGB	SGB U-Tube(6,EX) Pos.1	1. Installed 3/11/85. (AT-SB-01)		85-03-12

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SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICA. DATE
2961	CP 351	CPE-010E-HLA	HLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 7/23/88.	85-03-12 86-12-12 88-07-25
2962	CP 352	CPE-040A-HLA	HLA SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 3/01/86.	85-03-12 85-10-27 86-03-05
2963	CP 353	CPE-040B-HLA	HLA SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 3/01/86.	85-03-12 85-10-27 86-03-05
2964	CP 354	CPE-040C-HLA	HLA SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 3/01/86.	85-03-12 85-10-27 86-03-05
2965	CP 355	CPE-040D-HLA	HLA SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 3/01/86.	85-03-12 85-10-27 86-03-05
2966	CP 356	CPE-040E-HLA	HLA SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 3/01/86.	85-03-12 85-10-27 86-03-05
2967	CP 357	CPE-090A-CLA	CLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 3/01/86.	85-03-12 85-10-27 86-03-05
2968	CP 358	CPE-090B-CLA	CLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 3/01/86.	85-03-12 85-10-27 86-03-05
2969	CP 359	CPE-090C-CLA	CLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 3/01/86.	85-03-12 85-10-27 86-03-05
2970	CP 360	CPE-090D-CLA	CLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 3/01/86.	85-03-12 85-10-27 86-03-05
2971	CP 361	CPE-090E-CLA	CLA Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 3/01/86.	85-03-12 85-10-27 86-03-05
2972	CP 362	CPE-150A-HLB	HLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/23/88.	85-03-12 85-10-27 88-07-25
2973	CP 363	CPE-150B-HLB	HLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/23/88.	85-03-12 85-10-27 88-07-25
2974	CP 364	CPE-150C-HLB	HLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/23/88.	85-03-12 85-10-27 88-07-25
2975	CP 365	CPE-150D-HLB	HLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/23/88.	85-03-12 85-10-27 88-07-25
2976	CP 366	CPE-150E-HLB	HLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 10/25/85. (SB-PR-01) 3. Renewed 7/23/88.	85-03-12 85-10-27 88-07-25
2977	CP 367	CPE-180A-HLB	HLB SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 6/19/87. (SB-HL-02)	85-03-12 86-12-12 87-07-03
2978	CP 368	CPE-180B-HLB	HLB SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 6/19/87. (SB-HL-02)	85-03-12 86-12-12 87-07-03
2979	CP 369	CPE-180C-HLB	HLB SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 6/19/87. (SB-HL-02)	85-03-12 86-12-12 87-07-03
2980	CP 370	CPE-180D-HLB	HLB SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-02) 3. Renewed 6/19/87. (SB-HL-02)	85-03-12 86-12-12 87-07-03
2981	CP 371	CPE-180E-HLB	HLB SG Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 6/19/87. (SB-HL-02)	85-03-12 86-12-12 87-07-03
2982	CP 372	CPE-230A-CLB	CLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 7/02/87. (SB-CL-12)	85-03-12 87-07-05
2983	CP 373	CPE-230B-CLB	CLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 7/02/87. (SB-CL-12)	85-03-12 87-07-05
2984	CP 374	CPE-230C-CLB	CLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 7/02/87. (SB-CL-12)	85-03-12 87-07-05
2985	CP 375	CPE-230D-CLB	CLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 7/02/87. (SB-CL-12)	85-03-12 87-07-05
2986	CP 376	CPE-230E-CLB	CLB Vessel Side CPT	1. Installed 3/11/85. (AT-SB-01) 2. Renewed 7/02/87. (SB-CL-12)	85-03-12 87-07-05
2987	CP 377	CPE-560-S1	Suppression Tank Inlet	1. Installed 3/11/85. (AT-SB-01)	85-03-12
2988	CP 378	CPE051A-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 12/10/86. (SB-PV-01)	86-07-11 86-12-12
2989	CP 379	CPE051B-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 7/23/88.	86-07-11 88-07-30
2990	CP 380	CPE051C-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 2/01/89.	86-07-11 89-02-03
2991	CP 381	CPE051D-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 3/20/88. (SB-HL-04) 3. Renewed 2/01/89.	86-07-11 88-03-22 89-02-03
2992	CP 382	CPE051E-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Exchanged sensor 9/10/87. 3. Renewed 3/20/88. (SB-HL-04)	86-07-11 87-09-15 88-03-22
2993	CP 383	CPE051F-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 9/10/87. (SB-HL-03) 3. Renewed 7/23/88. (SB-CL-12)	86-07-11 88-07-30 88-07-25
2994	CP 384	CPE051G-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 2/01/89.	86-07-11 89-02-03
2995	CP 385	CPE051H-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 7/23/88.	86-07-11 88-07-30
2996	CP 386	CPE051I-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08)	86-07-11
2997	CP 387	CPE051J-LSA	LSA (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 2/01/89.	86-12-12 89-02-03
2998	CP 388	CPE191A-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 12/10/86. (SB-PV-01)	86-07-11 86-12-12

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SEQ NO	FUNC ID.	TAG NAME	LOCATION	EVENT M/D/Y (RUN NO.)	NOTIFICATION DATE
2999	CP 389	CPE191B-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 3/20/88. (SB-HL-04)	86-07-11 86-12-12 88-03-22
3000	CP 390	CPE191C-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 12/10/86. (SB-PV-01) 3. Renewed 3/20/88. (SB-HL-04)	86-07-11 86-12-12 88-03-22
3001	CP 391	CPE191D-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 7/23/88.	86-07-11 88-07-30
3002	CP 392	CPE191E-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Exchanged sensor 6/19/87. (SB-HL-02)	86-07-11 87-07-03
3003	CP 393	CPE191F-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08)	86-07-11
3004	CP 394	CPE191G-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08)	86-07-11
3005	CP 395	CPE191H-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08)	86-07-11
3006	CP 396	CPE191I-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 7/23/88.	86-07-11 88-07-30
3007	CP 397	CPE191J-LSB	LSB (SG Side)	1. Installed 7/10/86. (SB-CL-08) 2. Renewed 12/10/87. (SB-PV-01) 3. Renewed 7/23/88.	86-07-11 87-12-12 88-07-30
3008	CP 398	CPE-572A-BU	BU No.1 Spool Piece CPT	1. Not installed.	85-03-12
3009	CP 399	CPE-572B-BU	BU No.1 Spool Piece CPT	1. Not installed.	85-03-12
3010	CP 400	CPE-572C-BU	BU No.1 Spool Piece CPT	1. Not installed.	85-03-12
3011	CP 401	CPE-572D-BU	BU No.1 Spool Piece CPT	1. Not installed.	85-03-12
3012	CP 402	CPE-572E-BU	BU No.1 Spool Piece CPT	1. Not installed.	85-03-12
3013	CP 403	CPE-592A-BU	BU No.2 Spool Piece CPT	1. Not installed.	85-03-12
3014	CP 404	CPE-592B-BU	BU No.2 Spool Piece CPT	1. Not installed.	85-03-12
3015	CP 405	CPE-592C-BU	BU No.2 Spool Piece CPT	1. Not installed.	85-03-12
3016	CP 406	CPE-592D-BU	BU No.2 Spool Piece CPT	1. Not installed.	85-03-12
3017	CP 407	CPE-592E-BU	BU No.2 Spool Piece CPT	1. Not installed.	85-03-12
3018	CP 408	CE270-PV	PV Bottom	1. Installed 3/11/85. (AT-SB-01)	85-03-12
3019	CP 409	CP-VALVE-Y	Break Signal for YEWCOM	1. Installed 8/28/86. (SB-CL-09)	86-08-30
3020	CP 410	CP-VALVE-S	Break Signal for FACOM	1. Installed 8/28/86. (SB-CL-09)	86-08-30
3021	CP 411	CPE-W057C-DC	PV Downcomer	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3022	CP 412	CPE-W067C-DC	PV Downcomer	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3023	CP 413	CPE-W071C-DC	PV Downcomer	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3024	CP 414	CPE-E071C-DC	PV Downcomer	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3025	CP 415	CPE-B23661	B23 Rod(6,6) Pos.1	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3026	CP 416	CPE-B23662	B23 Rod(6,6) Pos.2	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3027	CP 417	CPE-B23663	B23 Rod(6,6) Pos.3	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3028	CP 418	CPE-B23664	B23 Rod(6,6) Pos.4	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3029	CP 419	CPE-B23665	B23 Rod(6,6) Pos.5	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3030	CP 420	CPE-B23666	B23 Rod(6,6) Pos.6	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3031	CP 421	CPE-B23667	B23 Rod(6,6) Pos.7	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3032	CP 422	CPE-B23668	B23 Rod(6,6) Pos.8	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3033	CP 423	CPE-B23669	B23 Rod(6,6) Pos.9	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3034	CP 424	CPL-001001	Core Barrel Inside West Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3035	CP 425	CPL-001002	Core Barrel Inside West Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3036	CP 426	CPE-001003	Core Barrel Inside West Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3037	CP 427	CPE-001004	Core Barrel Inside West Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3038	CP 428	CPE-001005	Core Barrel Inside West Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3039	CP 429	CPE-001006	Core Barrel Inside West Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3040	CP 430	CPL-001007	Core Barrel Inside West Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3041	CP 431	CPE-001008	Core Barrel Inside West Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3042	CP 432	CPE-001009	Core Barrel Inside West Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3043	CP 433	CPE-005001	Core Barrel Inside East Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3044	CP 434	CPE-005002	Core Barrel Inside East Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3045	CP 435	CPE-005003	Core Barrel Inside East Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3046	CP 436	CPE-005004	Core Barrel Inside East Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3047	CP 437	CPL-005005	Core Barrel Inside East Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3048	CP 438	CPE-005006	Core Barrel Inside East Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3049	CP 439	CPE-005007	Core Barrel Inside East Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3050	CP 440	CPE-005008	Core Barrel Inside East Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3051	CP 441	CPE-005009	Core Barrel Inside East Pos.	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3052	CP 442	CPE-007001	Core Barrel Inside South Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3053	CP 443	CPE-007002	Core Barrel Inside South Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3054	CP 444	CPL-007003	Core Barrel Inside South Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3055	CP 445	CPE-007004	Core Barrel Inside South Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3056	CP 446	CPE-007005	Core Barrel Inside South Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3057	CP 447	CPL-007006	Core Barrel Inside South Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3058	CP 448	CPE-007007	Core Barrel Inside South Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3059	CP 449	CPE-007008	Core Barrel Inside South Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19
3060	CP 450	CPE-007009	Core Barrel Inside South Pos	1. Installed for 2nd fuel 12/07/88. (SB-CL-20)	88-12-19

Appendix C Data Base for LSTF Metal Heat Capacity

- Table C.1 Heat capacity for metal structures in primary and secondary systems
- Table C.2 List of vessel wall components
(a) Pressure vessel weight, (b) SG vessels weight
(c) PR vessel weight
- Table C.3 List of internal structures in each vessel
(a) Pressure vessel, (b) Simulated fuel rods
(c) Pressurizer, (d) Steam generator
- Table C.4 Metal mass for outer structures contacting with Pressure boundary

Table C.1 Heat capacity for metal structures in primary and secondary systems

Region/Components*1	Weight, M		Heat Capacity, MCp	
	(kg)	(%)	(kJ/K)	(%)
Pressure Vessel (Total)	27886	23.8	15.32x10 ³	100.0
• Vessel at UH/UP (above EL 5.112 m)	8770		4.78x10 ³	31.2
• Vessel at Core (above EL 0.0 m)	5398		2.94x10 ³	19.2
• Vessel at LP (below EL 0.0 m)	7416		4.04x10 ³	26.4
• Internals in UH/UP	1907		1.01x10 ³	6.6
• Internals in Core/LP	4395		2.55x10 ³	16.6
Primary Loops (Total)	14508	12.4	7.90x10 ³	100.0
• Hot Legs	4140		2.25x10 ³	28.5
• Cross-Over Legs with HCVs*2	5299		2.89x10 ³	36.6
• Cold Legs with Pumps*2	5069		2.76x10 ³	34.9
Pressurizer (Total)	8202	7.0	4.46x10 ³	100.0
• Vessel with Heaters	6727		3.66x10 ³	82.1
• Pipings*3	1475		0.80x10 ³	17.9
Steam Generators (Total)	66671	56.9	36.23x10 ³	100.0
• Vessel at Top (above EL 17.919 m)	20068		10.93x10 ³	30.2
• Vessel at Middle (above EL 9.228 m)	11394		6.21x10 ³	17.1
• Vessel at Plenum (above EL 5.819 m)	19719		10.74x10 ³	29.6
• Internals in Steam Dome	1458		0.78x10 ³	2.2
• U-Tube Bundles with supports	11042		5.95x10 ³	16.4
• Downcomer Pipings	2990		1.62x10 ³	4.5
Total in Primary System	50596	43.1	27.68x10 ³	-
Total in Secondary System	66671	56.9	36.23x10 ³	-
Total in Whole System	117267	100.0	63.91x10 ³	

*1 Nozzles with flanges are limited to those installed on the vessels or primary loops. Outer metal structures shown in Table C.4 and connecting pipings are excluded.

*2 Thirty percent of total pump weight (1600 kg) and 35% of total HCV weight (2000 kg) are included in each loop.

*3 Surge line and spray line pipings are counted.

Table C.2 List of vessel wall components

(a) Pressure Vessel Weight

Components*	M (kg)	%
Vessel Barrel and Semi-Sphere	10637	49.3
Flanges (x 3)	4223	19.5
Vessel Bottom Plate	2480	11.5
Vessel Nozzles	4244	19.7
Total	21584	100.0

(b) SG Vessels Weight

Components*	SG-A (kg)	SG-B (kg)	Total (kg)	%
Barrels and Semi-Spheres	14309	14309	28618	54.2
Flanges (x 7) and Tube Sheet	10247	10247	20494	38.8
Vessel Nozzles	1787	1892	3679	7.0
Total	26343	26448	52791	100.0

(c) PR Vessel Weight

Components*	M (kg)	%
Vessel Barrel and Semi-Sphere	3717	56.0
Flange, Bottom Plate and Nozzles	2916	44.0
Total	6633	100.0

* Internal and outer structures are not included.

Most of the components are made of carbon steel.

Table C.3 List of internal structures in each vessel

(a) Pressure Vessel

Major Components	Material	Weight (kg)	%
UCSP and Upper Core Barrel	SUS304	1104	17.5
Support Columns	SUS304	99	1.6
Control Rod Guide Tubes	SUS304	424	6.7
Others in UH/UP	SUS304	280	4.4
Lower Core Barrel	SUS304	759	12.1
Spacers and Grids	SUS316	226	3.6
Simulated Fuel Rods	-	3410	54.1
Total		6302	100.0

(b) Simulated Fuel Rods

Materials	Weight (kg)	Volume V (m ³)	ρC_p (kJ/m ³ ·K)	Heat Capacity	
				(kJ/K)	ρVC_p (%)
Inconel	1268	0.1504	4.17×10^3	627	31.0
MgO	383	0.1354	3.21×10^3	435	21.5
Nichrome	247	0.0294	3.45×10^3	101	5.0
Al ₂ O ₃	186	0.0489	3.74×10^3	183	9.0
Pure Copper	280	0.0313	3.68×10^3	115	5.7
SUS304	423	0.0535	4.21×10^3	225	11.1
SUS316	623	0.0783	4.30×10^3	337	16.7
Total	3410	0.5272	-	2023	100.0

ρ and V at 293 K, and C_p at 523 K.

Table C.3 (Cont'd)

(c) Pressurizer

Components	Material	Weight (kg)	%
Heater Rods (x 21)	SUS316, etc	75	80.0
Support Rods and Plates	SUS304	19	20.0
Total		94	100.0

(d) Steam Generators

Components	Material	Weight (kg)	%
Principal Steam Separator	SUS304	398	6.4
Second Steam Separator	-	200	3.2
Other Internals in Steam Dome	SUS304/316	131	2.1
U-Tubes	SUS316	4699	75.2
Support Plates and Others	SUS304	822	13.1
Total		6250	100.0
Total (Two SGs)		12500	-

Table C.4 Metal mass for outer structures contacting with pressure boundary

Region / Component Name	Weight (kg)	%
Pressure Vessel (Total)	2507	13.9
• Bolts & Nuts for Flanges (x 48)	1244	
• End Flanges	680	
• Other Outer Components	583	
Primary Loops (Total)	8613	47.8
• Bolts & Nuts, Graylock Hubs, End Flanges	3783	
• Pump Motor Sections (x 2)	2230	
• HCV Body Sections (x 2)	2600	
Steam Generators (Total)	6542	36.3
• Bolts & Nuts for Flanges (x 48 x 2)	2936	
• End Flanges	1126	
• Other Outer Components	2480	
Pressurizer (Total)	360	2.0
• Bolts & Nuts for Flanges (x 24)	269	
• Other Outer Components	91	
Total for LSTF System*1	18022*1	100.0

*1 Excluded are connecting pipings such as ECCS lines, vent lines, break lines and steam and feedwater lines. Most of the components are made of carbon steel.

Appendix D Metal Temperature Data for Second Heat Loss Test

Table D.1 Metal temperature data for second natural cool-down
heat loss test

- (a) PV wall, (b) PV internals
- (c) Heater rod surface temperatures
- (d) Primary loops, (e) Pressurizer
- (f) SG-A, (g) SG-B

Table D.2 Heat loss in metal structures by using $\Delta T/\Delta t$
during 8000 s in second cool-down test

Table D.1 Metal temperature data for second natural cool-down heat loss test

(a) PV Wall

Component, region	T/C ID No.	Initial Value T(K) (t = 58000 s)	Final Value T(K) (t = 66000 s)
\geq EL 5.112 m	TW-40, 41	551, 551	521, 521
\geq EL 5.112 m	TW-36 - 39	547, 540, 545, 548	520, 514, 518, 519
\geq EL 0.0 m	TW-32 - 35	523, 519, 516, 522	512, 509, 505, 512
\geq EL 0.0 m	TW-28 - 31	514, 514, 513, 513	513, 512, 511, 511
\geq EL 0.0 m	TW-24 - 27	508, 507, 507, 507	499, 500, 500, 500
< EL 0.0 m	TW-22, 23	491, 490	463, 461

(b) PV Internals

Component	Location	Initial Value T(K) (t = 58000 s)	Final Value T(K) (t = 66000 s)
UCSP	(EL 6.474 m)	530, 535, 532, 527	515, 527, 516, 514
UCSP	(EL 6.170 m)	528, 535, 531, 527	515, 527, 517, 515
Upper CB	(EL 6.038 m)	533, 533, 533	508, 513, 505
Middle CB	(EL 4.850 m)	528, 529, 525, 530	508, 511, 507, 509
CRGT	(EL 4.700 m)	527, 531, 534, 543	506, 510, 515, 516
Middle CB	(EL 3.610 m)	527, 531, 524, 526	519, 524, 515, 508
Middle CB	(EL 2.750 m)	538, 537, 539, 536	528, 530, 532, 527
Middle CB	(EL 1.830 m)	541, 537, 539, 538	530, 531, 530, 530
Middle CB	(EL 1.018 m)	533, 532, 533, 533	527, 527, 527, 527
Middle CB	(EL 0.0 m)	516, 516, 516	510, 510, 510

Table D.1 (Cont'd)

(c) Heater rod surface temperatures

Region	Location	Initial Value T(K) (t = 58000 s)	Final Value T(K) (t = 66000 s)
Central Region	Position 9	590, 605, 600	556, 573, 570
	Position 8	596, 606, 600	564, 571, 571
	Position 7	604, 589	574, 563
	Position 6	594, 599, 591	569, 573, 566
	Position 5	589, 591, 587	567, 568, 564
	Position 4	578, 578, 577	560, 559, 560
	Position 3	564, 564	552, 552
	Position 2	550, 548, 549	542, 540, 541
	Position 1	526, 526, 526	522, 522, 522
Peripheral Region	Position 9	562, 554, 546	531, 535, 529
	Position 8	568, 573, 567	546, 553, 546
	Position 7	575, 580, 562	550, 555, 545
	Position 6	575, 586, 575	551, 561, 552
	Position 5	574, 585, 578	552, 562, 556
	Position 4	571, 573, 562	552, 554, 548
	Position 3	559, 554	547, 541
	Position 2	545, 545, 544	536, 537, 535
	Position 1	527, 526, 525	522, 521, 520

(d) Primary Loops

Component	T/C ID No.	Initial Value T(K) (t = 58000 s)	Final Value T(K) (t = 66000 s)
HLA	TW-1, 2	529, 522	499, 492
HLB	TW-7, 8	524, 524	487, 491
COLA	TW-3, 4	495, 525	461, 495
COLB	TW-9, 10	507, 531	484, 501
CLA	TW-5, 6	528, 528	485, 494
CLB	TW-11, 12	528, 518	499, 485

Table D.1 (Cont'd)

(e) Pressurizer

Component	T/C ID No.	Initial Value T(K) (t = 58000 s)	Final Value T(K) (t = 66000 s)
PR Wall	TW-539, 540	558, 556	535, 535
PR Wall	TW-541, 542	560, 559	544, 544
PR Wall	TW-543, 544	549, 549	535, 536
Surge Line	TW-13	447	429

(f) SG-A

Component	Location	Initial Value T(K) (t = 58000 s)	Final Value T(K) (t = 66000 s)
Plenum Wall	TW-457 - 462	546, 548, 549	532, 533, 534
Plenum Wall	TW-457 - 462	552, 554, 553	533, 534, 534
SG Wall	TW-463 - 466	503, 524, 529, 531	475, 523, 520, 519
Downcomers	TW-14 - 17	504, 502, 496, 502	469, 467, 453, 467
U-Tubes	(EL 8.614 m)	440, 541, 540, 545	507, 508, 508, 510
U-Tubes	(EL 8.614 m)	539, 534	507, 498
U-Tubes	(EL 9.904 m)	548, 551, 549, 556	530, 532, 532, 534
U-Tubes	(EL 9.904 m)	530	500
U-Tubes	(EL 11.184 m)	551, 553, 556, 542	536, 538, 539, 529
U-Tubes	(EL 13.744 m)	555, 557, 545, 547	544, 544, 536, 538
U-Tubes	(EL 16.304 m)	558, 558, 546, 546	543, 542, 530, 529
U-Tubes	(EL 17.012 m)	552	538
U-Tubes	(EL 17.852 m)	542	533
U-Tubes	(EL 18.584 m)	542	533

Table D.1 (Cont'd)

(g) SG-B

Component	Location	Initial Value T(K) (t = 58000 s)	Final Value T(K) (t = 66000 s)
Plenum Wall	TW-498 - 503	548, 546, 547	530, 526, 528
Plenum Wall	TW-498 - 503	551, 553, 552	531, 520, 533
SG Wall	TW-504 - 507	510, 530, 524, 533	481, 527, 510, 521
Downcomers	TW- 17 - 21	494, 503 484, 487	450, 467, 452, 455
U-Tubes	(EL 8.614 m)	537, 539, 539, 543	514, 516, 515, 517
U-Tubes	(EL 8.614 m)	530, 535	504, 501
U-Tubes	(EL 9.904 m)	546, 550, 546, 539	534, 535, 536, 530
U-Tubes	(EL 9.904 m)	544	532
U-Tubes	(EL 11.184 m)	549, 553, 551, 542	538, 538, 540, 530
U-Tubes	(EL 13.744 m)	554, 557, 546, 549	545, 547, 538, 540
U-Tubes	(EL 16.304 m)	556, 557, 546, 546	544, 543, 531, 530
U-Tubes	(EL 17.012 m)	551	539
U-Tubes	(EL 17.852 m)	547	531
U-Tubes	(EL 18.584 m)	541	527

Table D.2 Heat loss in metal structures by using $\Delta T/\Delta t$ during 8000 s
in second cool-down test

Components	$\rho V C_p$ (kJ/K)	$\Delta T/\Delta t$ (K/s)	Q_M (kW)
Pressure Vessel (Total)	15.32×10^3	-	41.0
• Vessel at UH/UP	4.78×10^3	3.6×10^{-3}	17.2
• Vessel at Core	2.94×10^3	0.8×10^{-3}	2.4
• Vessel at LP	4.04×10^3	3.6×10^{-3}	14.5
• Internals in UH/UP	1.01×10^3	2.1×10^{-3}	2.1
• Internals in Core/LP	2.55×10^3	1.9×10^{-3}	4.8
Primary Loops (Total)	7.90×10^3	-	31.8
• Hot Legs	2.25×10^3	4.1×10^{-3}	9.2
• Crossover Legs with HCVs	2.76×10^3	3.7×10^{-3}	10.2
• Cold Legs with PC Pumps	2.89×10^3	4.3×10^{-3}	12.4
Pressurizer (Total)	4.46×10^3	-	9.5
• Vessel with Heaters	3.66×10^3	2.1×10^{-3}	7.7
• Piping	0.80×10^3	2.3×10^{-3}	1.8
Steam Generators (Total)	36.23×10^3	-	73.1
• Vessel at Steam Dome	10.93×10^3	1.5×10^{-3}	16.4
• Vessel at Boiler Section	6.21×10^3	0.8×10^{-3}	5.0
• Vessel at Bottom/Plenum	10.74×10^3	2.9×10^{-3}	31.1
• Internals in Steam Dome	0.78×10^3	1.5×10^{-3}	1.2
• Tube Bundles with Supports	5.95×10^3	2.0×10^{-3}	11.9
• Downcomer Piping	1.62×10^3	4.6×10^{-3}	7.5
Total in Primary System	27.68×10^3	-	82.3
Total in SG/Secondary Systems	36.23×10^3	-	73.1
Total in Whole System	63.91×10^3	-	155.4

Appendix E List of 42 Integral Tests and Bypass Leak Flow Tests

Appendix E List of 42 integral tests and bypass leak flow tests

RUN No.	Date	Description
AT-SB-01	3/11/85	0.1% Cold-Leg Side Break
AT-SB-02	3/26/85	10% Cold-Leg Side Break
AT-SB-03	4/12/85	Loss-of-Feedwater with one Stuck-Open PORV (TMI Type)
SB-CL-01	5/30/85	2.5% Cold-Leg Side Break
SB-CL-05	6/26/85	5% Cold-Leg Side Break
SB-CL-02	7/18/85	2.5% Cold-Leg Bottom Break
SB-CL-03	8/ 8/85	2.5% Cold-Leg Top Break
SB-PR-01	10/30/85	Loss-of-Feedwater with Three Stuck-Open PORVs (TMI Type)
ST-NC-01	12/ 4/85	Primary System NC Experiment (5% Power)
ST-SG-01	12/ 4/85	SG Secondary Side NC Experiment (5% Power, 45% mass)
ST-NC-02	12/18/85	Primary System NC Experiment (2% Power)
ST-SG-02	12/18/85	SG Secondary Side NC Experiment (2% Power, 30% mass)
SB-CL-06	1/23/86	5% Cold-Leg Side Break (Counterpart Test for Semiscale S-LH-1)
SB-CL-07	3/ 6/86	5% Cold-Leg Side Break (PV internal Vent Valves)

Appendix E (Cont'd)

RUN No.	Date	Description
SB-LS-01	3/27/86	5% Loop-Seal Bottom Break
	6/26/86	Bypass Leak Flow Test, No. 1
SB-CL-08	7/10/86	5% Cold-Leg Side Break
SB-HL-01	7/30/86	5% Hot-Leg Side Break
SB-CL-09	8/28/86	10% Cold-Leg Side Break
	9/19/86	Bypass Leak Flow Test, No. 2
SB-CL-10	10/ 1/86	5% Cold Leg Side Break (Counterpart Test for Semiscale S-LH-1, Small Bypass Leakage)
TR-LF-01	10/21/86	Station Black-out Transient (TMLB')
ST-NC-03	11/12/86	Primary System NC Experiment (5% Power)
ST-SG-03	11/12/86	SG Secondary Side NC Experiment (5% Power)
	12/ 4/86	Bypass Leak Flow Test, No. 3
SB-PV-01	12/17/86	Pressure Vessel Bottom Break (24 instruments lines)
	1/13/87	Bypass Leak Flow Test, No. 4
SB-SG-01	1/28/87	Steam Generator U-Tube Break (3 U-Tubes)
ST-NC-04	2/26/87	Primary System NC Experiment (14, 10, 5, 2% Power)

Appendix E (Cont'd)

RUN No.	Date	Description
ST-SG-04	2/26/87	SG Secondary Side NC Experiment
TR-LF-02	3/30/87	Station Black-out Transient (TMLB')
	4/10/87	Bypass Leak Flow Test. No. 5
SB-CL-11	4/21/87	0.5% Cold-Leg Side Break
SB-PV-02	6/ 9/87	Pressure Vessel Upper Head Break (0.5%)
SB-HL-02	6/30/87	10% Hot-Leg Side Break
	7/13/87	Bypass Leak Flow Test, No. 6
SB-CL-12	7/29/87	0.5% Cold-Leg Side Break (Flush Break Orifice)
SB-HL-03	10/21/87	0.5% Hot-Leg Side Break (Flush Break Orifice)
	10/23/87	Bypass Leak Flow Test, No. 7
SB-CL-13	11/19/87	5% Cold-Leg Side Break (New Power Curve)
	11/27/87	Bypass Leak Flow Test, No. 8
SB-CL-14*	12/21/87	10% Cold-Leg Side Break (New Power Curve)
	1/ 6/88	Bypass Leak Flow Test, No. 9
SB-CL-15	1/26/88	0.5% Cold-Leg Bottom Break (Flush Break Orifice)

Appendix E (Cont'd)

RUN No.	Date	Description
	1/29/88	Bypass Leak Flow Test, No. 10
SB-CL-16	3/ 2/88	0.5% Cold-Leg Top Break (Flush Break Orifice)
SB-HL-04*	3/29/88	10% Hot-Leg Top Break (New Power Curve)
	4/ 4/88	Bypass Leak Flow Test, No. 11
SB-CL-17	4/26/88	0.5% Cold-Leg Side Break (1.2% Bypass, Flush Break Orifice)
SB-CL-18*	5/25/88	5% Cold-Leg Side Break (Repeat of SB-CL-08)
	5/30/88	Bypass Leak Flow Test, No. 12
SB-CL-19	6/29/88	10% Cold-Leg Side Break (Repeat of SB-CL-09, KPWR ECCS)
ST-NC-05	6/29/88	Primary System NC Experiment (High Power)
ST-SG-05	6/29/88	SG Secondary NC Experiment (High Power)
	7/ 5/88	Bypass Leak Flow Test, No. 13
TR-LF-03	8/ 2/88	Station Black-out (Repeat of TR-LF-02)
	8/ 5/88	Bypass Leak Flow Test, No. 14

* Loop-seal reformation test was followed after the test.