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REFLA-1D/MODE 1 : A COMPUTER PROGRAM FOR REFLOOD THERMO-HYDRODYNAMIC ANALYSIS DURING PWR-LOCA

USER'S MANUAL

January 1981

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REFLA-1D/MODE 1 :
A Computer Program for Reflood Thermo-hydrodynamic Analysis During PWR-LOCA
User's Manual

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This manual describes the REFLA-1D/MODE 1 reflood system analysis code. This code can solve the core thermo-hydrodynamics under forced flooding conditions and gravity feed conditions in a system similar to FLECHT-SET phase A. This manual describes the REFLA-1D/MODE 1 models and provides application information required to utilize REFLA-1D/MODE 1.

Keywords; PWR, LOCA, Reflood, Computer Code, Quench, Thermo-hydrodynamics, Heat Transfer, Two-phase Flow

REFLA－1D／MODE 1：PWR－LOCA 時再冠水熱水力解析計算プログラム使用マニュアル

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本マニュアルは，REFLA－1D／MODE 1 再冠水システム解析コードを説明したものである。本コードは，強制注水時ならびにFLECHT－SET phase A のようなシステムにおけるダウンカマからの重力差による注水時の炉心熱水力動特性を解析するために用いる。本マニュアルには，REFLA－1D／MODE 1 のモデルが述べてあり，また，REFLA－1D／MODE 1 の使用上の情報が与えられている。

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1. Outline of REFLA-1D/Mode 1

1) Name : REFLA-1D/MODE 1

2) Type of reactors : PWR

3) Phenomena to be solved :

Thermo-hydrodynamic behavior of the core and the system during reflood phase of a LOCA

4) Input variables :

Configuration and physical properties of fuel or simulated fuel, axial distribution of power and initial clad temperature, power decay, system pressure, ECCS injection flow rate transient and core inlet fluid temperature.

5) Output variables :

Flow rate, pressure, fluid temperature, clad surface temperature, heat transfer coefficient and void fraction of each node of the core and flow rate, pressure and water accumulation of each component of the system.

6) Model :

(1) Geometrical characteristics

- Flow channel in core : One dimensional
- Fuel rod : One dimensional (One point approximation at each node)
- System : One dimensional

(2) Main physical properties

- Temperature
- Pressure
- Flow rate
- Void fraction

(3) Physical model

- Core hydrodynamic model : Completely-separated two-phase flow (Neglecting the feed back of pressure to physical properties)
- Fuel model : One point approximation at each node
- System model : Single phase model without coupling with energy equations

7) Numerical calculation

- Flow channel in core : Foward difference method (from core inlet to core exit), Lagrangian type approximation in the calculation of energy equations.

- Fuel rod : Finite difference method
- System : Runge-Kutta-Gill method

8) Capability of REFLA-1D

(1) Forced feed transient calculation

(2) Gravity feed transient calculation for a system simular to the FLECHT-SET phase A facility in shich the steam-water mixture flowing from the core is separated in the upper plenum. The water is drained from the upper plenum while the steam is allowed to flow into the hot leg.

2. Background

In the safety analysis of the Loss-of-Coolant Accident (LOCA) of Light Water Reactors, it is very important evaluate the temperature history of the fuel rod cladding during the reflood phase, which is governing the integrity of the first enclosure of the fission product. Fig.1(a) illustrates a sketch of a possible temperature-time history at the midplane of the core during the reflood phase. The time to the termination of the temperature excursion is called the turn-around time. The time when the temperature decreases rapidly is called a quench time.

In Order to investigate the thermo-hydrodynamic behavior, many flooding experiments were conducted. The most important experiments were the PWR-FLECHT program and its continuation, the FLECHT-SET program. These programs generated heat transfer correlations and fluid flow data necessary for the licensing of PWRs. Based on the data, it was found that the heat transfer coefficient increased significantly and quench time decreased with increasing flooding rate (core inlet flow rate) due to increased vapor generation rates and liquid entrainment. The flooding rate is controlled by the balance between the driving head forcing the water into the core (the head of water in the downcomer minus that in the core), and the back pressure in the upper plenum created by the steam-water mixture flowing from the core exit to the break. The downcomer head has a maximum value because the water exceeding the level of a broken cold leg nozzle spills over. The back-pressure effect, which opposes flooding the core with water during reflood phase, is called "Steam binding". Therefore, the core thermo-hydrodynamics is strongly linked with the system thermo-hydrodynamics.

In the safety evaluation of the reflood phase of a PWR, empirical correlations described numerically for the reflood heat transfer and the carryover rate fraction were used. The latter is used for calculating the conditions of the core inlet. This method is valid for studying the quasi-steady-state analysis without extrapolation outside the experimental range. In order to obtain the flexibility of application to safety analysis, it was determined to develop a best-estimate computer code for the reflood process based on the physical understanding of the phenomena.

AS a first stage, we developed a one-dimensional core thermo-hydrodynamic code named REFLA-1D[1],[2] for a single coolant channel in a reactor core with bottom injection of coolant at a comstant flow rate, which is thought to be the basis for the extension to an integral reflood analysis code.

This code gave fairly good results[3]. As shown in Fig.3, the heat transfer coefficient at the midplane calculated with $W_{ec} = 1$ agreed with those of PWR-FLECHT except those in low flooding cases ($u_{\ell in} < 2.5$ cm/sec) and those in the transition flow region (identified as flat parts in calculated results and called the inverted annular flow regions).

In order to improve the core code, some modifications were made by introducing newly developed correlations and experimentally verified correlations and changing the calculational sequences. In order to simulate the reflood phenomena of forced feed tests and gravity feed tests with a system like FLECHT-SET phase A, the modified REFLA-1D core code was coupled with a system model which simulates the thermo-hydrodynamic behavior outside the core. By althernate calculation of the core part and the system part, the data of the effluent rate from core were fed to the system part and those of the flooding rate were fed to the core part.

In order to verify this system code (REFLA-1D system code), small scale reflood experiments were carried out and the data were compared with the results of the calculations. Qualitative agreement was obtained[4]. This manual describes the REFLA-1D/MODE 1 code and its model and provides application information required to utilize REFLA-1D/MODE 1. This program can treat the reflood thermo-hydrodynamic simulation of a one-dimensional bottom-flooded core. Forced flooding and gravity flooding can be treated. In the case of gravity flood calculations, a simple system like the PWR FLECHT-SET phase A test facility can be used.

II. Mathematical expression of reflood model

1. Core model

1.1 Flow pattern

The flow model shown in Fig.2 was assumed as the reflood flow model : (1) Type 1 flow pattern appears under the subcooled condition at the quench front. Upstream from the quench front, the injected water enters the liquid phase region and the subcooled nucleate boiling region. Downstream from the quench front, the water enters the subcooled film region (the water temperature is lower than the saturation temperature), the transition flow region (the water is at the saturation temperature and the criterion for transition is not satisfied), the dispersed flow region (the criterion is satisfied and droplets are formed and accelerated), the rewetted region (when the wall temperature is lower than a critical temperature) and the superheated steam flow region (only when water does not exist in the region). (2) Type 2 flow pattern appears under saturated conditions at the quench front. The flow pattern is nearly the same as the Type 2 flow pattern except for the regions near the quench front. The saturated two-phase flow region appears upstream from the quench front and a subcooled film boiling region does not appear downstream from the quench front.

The definition of the boundaries and the boundary conditions of each region is also described in Fig.2. The boundary just below dispersed flow is called the froth level.

1.2 Basic thermo-hydrodynamic equations for coolant

Based on the assumption of perfectly separated two-phase flow, the Eulerian equations for the conservation of mass, momentum and energy for two-phase fluid flowing upward in a vertical channel are :

Continuity for the vapor phase

$$\frac{\partial(\alpha \rho_g)}{\partial t} + \frac{\partial(\alpha \rho_g U_g)}{\partial Z} = \dot{m} \qquad (1)$$

Continuity for the liquid phase

$$\frac{\partial\{(1-\alpha)\rho_\ell\}}{\partial t} + \frac{\partial\{(1-\alpha)\rho_\ell U_\ell\}}{\partial Z} = -\dot{m} \qquad (2)$$

Momentum for the vapow phase

$$\frac{\partial(\alpha\rho_g U_g)}{\partial t} + \frac{\partial(\alpha\rho_g U_g^2)}{\partial Z} + \alpha\frac{\partial p}{\partial Z} + \alpha\rho_g g + V_g = \dot{m}U_\ell \tag{3}$$

Momentum for the liquid phase

$$\frac{\partial\{(1-\alpha)\rho_\ell U_\ell\}}{\partial t} + \frac{\partial\{(1-\alpha)\ell_\ell U_\ell^2\}}{\partial Z} + (1-\alpha)\frac{\partial p}{\partial Z}$$

$$+ (1-\alpha)\rho_\ell g + V_\ell = -\dot{m}U_\ell \tag{4}$$

Energy for the vapor phase

$$\frac{\partial(\alpha\rho_g g H_g)}{\partial t} + \frac{\partial(\alpha\rho_g g U_g H_g)}{\partial Z} = Q_g + \dot{m}gH_g \tag{5}$$

Energy for the liquid phase

$$\frac{\partial\{(1-\alpha)\rho_\ell g H_\ell\}}{\partial t} + \frac{\partial\{(1-\alpha)\rho_\ell g U_\ell H_\ell\}}{\partial Z} = Q_\ell - \dot{m}gH_g \tag{6}$$

1.3 Generalized equations for the core

It was assumed that :

(1) The two-phases are perfectly separated.

(2) The physical properties of the liquid are functions of only the system pressure and the temperature of the liquid of two-phase flow is saturation temperature.

(3) The physical properties of the vapor are functions of the system pressure and the vapor temperature. The specific heat of the vapor is constant and the vapor is considered an ideal gas, i.e.

$$H_g = H_{sat} + H_{fg} + C_{pg}(T_g - T_{sat}) \tag{7}$$

$$P_g = P_{gsat}(T_{sat} + 273.16) / (T_g + 273.16) \tag{8}$$

(4) Core inlet pressure is represented as system pressure.

Under the above assumption, equations (1) to (6) can be rewritten in the following forms:

(Adding eqs. (1) and (2))

$$\partial\{\alpha\rho_g + (1-\alpha)\rho_\ell\}/\partial t + \partial G/\partial Z = 0 \quad , \tag{9}$$

(eq.(5) - eq.(1) × H_gg and arranging with eq.(7))

$$\partial T_g/\partial t + U_g\ \partial T_g/\partial Z = Q_g/(\alpha\rho_g C_{pg} g) \quad , \tag{10}$$

(eq.(6) - eq.(2) multiplied by H_ℓ g and arranging)

$$\dot{m} = Q_\ell/\{H_{fg}g + C_{pg}g\ (T_g - T_{sat})\} \quad , \tag{11}$$

((eq.(5)+eq.(6)) - (eq.(1)+eq.(2)) × H_ℓ g and arranging)

$$\partial(\alpha\rho_g)/\partial t + \partial G_g/\partial Z = \dot{m} \quad , \tag{12}$$

(eq.(3) + eq.(4))

$$\partial G/\partial t + (1/\rho_\ell)\partial D_v/\partial Z + \partial p/\partial Z + g\{\alpha\rho_g + (1-\alpha)\rho_\ell\} + V_\ell + V_g = 0 \quad , \tag{13}$$

where $$G_g = \rho_g U_g \alpha \quad , \tag{14}$$

$$G = G_g + \rho_\ell U_\ell (1-\alpha) \quad , \tag{15}$$

and $$D_v = \{\rho_\ell/(\alpha\rho_g)\}G_g^2 + 1/(1-\alpha)\}(G-G_g)^2 \quad . \tag{16}$$

One additional momentum equation is necessary to be equivalent to the set of original equations. Instead of the additional momentum equation, a correlation for slip velocity ΔU is introduced. ΔU is defined as $U_g - U_\ell$ and if G and G_g are given, the void fraction can be derived, i.e.

$$\alpha = \frac{1}{2}\left(1 + \frac{C1 + C2}{\Delta U} - \sqrt{1 + \frac{2(C2 - C1)}{\Delta U} + \left(\frac{C1 + C2}{\Delta U}\right)^2}\ \right), \tag{17}$$

where $C1 = G_g/\rho_g$, (18)

and $C2 = (G - G_g)/\rho_\ell$. (19)

In single liquid phase flow, equations (10) and (11) are replaced as follows :

$$\partial T_\ell/\partial t + \partial(U_\ell T_\ell)/\partial Z = Q_\ell/(\rho_\ell D_{p\ell} g) \quad , \tag{20}$$

and $\dot{m} = 0$. (20)

1.4 Thermo-hydrodynamic correlations used in core model

(1) Liquid phase flow region

Single liquid phase flow is used for the hydrodynamic model and saturated nucleate boiling is assumed for the heat transfer model. Even in the non-boiling region, a saturated nucleate boiling heat transfer model is used for the calculation of the clad temperature.

(2) Saturated two-phase flow region

Thermal equilibrium is assumed between two-phases. Cunningham-Yeh's correlation[10] is adopted for the void fraction correlation which is used to calculate the slip velocity, ΔU, that is,

$$\Delta U = G_g/(\alpha_{yeh} \cdot \rho_g) \quad . \tag{21}$$

Frictional pressure loss is neglected. Saturated nucleate boiling is assumed for the heat transfer model.

(3) Transition flow region

Because of a lack of information for this region, the same models as described in (2) is adopted for the hydrodynamic model. For the heat gransfer coefficient,

$$h_{sat} = 0.94(1-\alpha)^{0.25}\{\lambda_g^3 \rho_g(\rho_\ell-\rho_g) \cdot H_{fg} \cdot g / (L_Q \mu_g)(T_w-T_{sat})\}^{0.25} \tag{22}$$

$$h_R = E(1-\alpha)^{0.5}\ \varepsilon\ (T_w^4 - T_{sat}^4)/(T_w - T_{sat}) \quad . \tag{23}$$

The above correlation was developed by Murao and Sugimoto[5].

(4) Subcooled film boiling region

According to many vesearchers, the parameter of the liquid subcooling is thought to be most seneitive parameter and Kalinin[6] developed the correlation of a multiplication for the saturated film boiling with his data of liquid-nitrogen experiments. But for water, Kalinin's correlation was found to be invalid. Sudo developed a multiplication factor of the saturated film boiling for subcooled film boiling with his data and PWR-FLECHT data[7]. The multiplication factor $F\ (\equiv h_{seb}/h_{sat})$ is written as :

$$F = 1.0 + 0.025 \cdot (T_{sat} - T_\ell) \quad . \tag{24}$$

The basic hydrodynamic equations in the single liquid flow region without frictional pressure loss is applied for subcooled film boiling region because the thin vapor film was considered a lubricant.

(5) Dispersed flow region

It was assumed that :

1) So-called two step model is available, that is, the heat is transferred from the heated wall to the vapor and from the vapor to the droplets by convection heat transfer and from the heated wall to the droplets by radiation heat transfer.
2) Spherical droplet configuration is considered for calculation of the viscous force and the heat transfer.
3) Slip velocity $\Delta U \equiv (U_g - U_\ell)$ is equal to the free fall velocity of a droplet, in the other words, the gravity force balances with the drag force, i.e.

$$(1-\alpha)\rho_\ell g = V_\ell \quad . \tag{25}$$

4) Diameter of a droplet is calculated by the following correlation of the critical Weber number :

$$W_{ec} + \rho_g\ \Delta U_{crit}^2\ D_d/\sigma \quad . \tag{26}$$

The Weber number is a dimensionless parameter of the ratio of the kinetic energy of the fluid around the droplet to the surface energy of the droplet. It is thought to have a maximum value, that is, if the kinetic energy of the droplet and the surface energy increases to a limiting value, at which time the droplet becomes unstable and breaks out. Though the critical Weber number We_c recommended by Groeneveld is 6.5[11], but because of a lack of data We_c could not be fixed.

5) For the drag coefficient of spherical droplets, the Ingebo's correlation[8] is adopted, i.e.

$$C_D = 27\ R_e^{-0.84} \tag{27}$$

and $$C_{Dmin} = 0.4 \tag{27}$$

From the assumption of spherical droplets, the following relations are derived :

$$V_\ell = -\frac{n}{U_\ell} C_D \frac{1}{2} \rho_g \Delta U^2 \cdot \pi \frac{D_d^2}{4} \quad , \tag{28}$$

$$\frac{n}{U_\ell} = (1-\alpha)/\{\frac{4}{3}\pi (\frac{D_d}{2})^3\} \quad . \tag{29}$$

Arranging equations (24) to (29), the following critical slip velocity ΔU_{crit} is obtained :

$$\Delta U_{crit} = \min (\Delta U_2 \cdot \Delta U_3) \quad , \tag{30}$$

where

$$\Delta U_2 = 0.53713 \cdot (\rho \cdot Wec)^{0.3801} \cdot \rho_g^{-0.5868} \cdot \nu^{-0.1736} \cdot (\rho_L \cdot g)^{0.2066} \quad , \tag{31}$$

$$\Delta U_3 = 1.3512 \cdot (\frac{\rho_L \cdot g \cdot \sigma \cdot Wec}{\rho_g^2})^{0.25} \quad , \tag{32}$$

(from $C_D = 0.4$)

and min(a,b) indicates the minimum of the value a and b. The droplet size can be calculated as,

$$D_d = \frac{W_{ec} \cdot \sigma}{\rho_g \cdot \Delta U^2_{crit}} \quad . \tag{33}$$

(6) Superheated steam flow

Single phase gas model is used in thermo-hydrodynamic model.

(7) Rewetted region

Top quench is not considered because it was found that the present quench model does not apply to top quench and a minor effect of top quenching on the over-all thermo-hydrodynamic behavior was observed.

1.5 Determination of flow boundaries

(1) Determination of liquid top

In order to determine the liquid top, the rest of water above the current calculational node in the core is monitored. The water remaining from the previous time t was stored and added to the water entering the core during Δt. The total amount of water indicates the available during t to $t + \Delta t$. The water consumed below the calculational node is subtracted from the total and the rest of the water, which is the available water above the calculational node, is monitored. When the water above the calculational node does not exist, the liquid top is interpolated. This procedure is also valid for reverse flow.

(2) Quench front propagation

Murao's correlation[9] is adopted for the propagation of the bottom quench front. The correlation is written as

$$U_q^{-1} = C_p \rho g \, (T_Q - T_o) \,/\, \{2.19 \times 10^6 (\mathrm{kcal/m^2 h}) \times (1 + 0.2778 \times 10^{-4} \, \Delta T_{sub}^3)\} \tag{34}$$

where $T_o = 321.05 + 0.237 \times 10^{-4} p(\mathrm{kg/m^2})$. (35)

$C_p \rho g$ of the clad material is assumed to be 927.48 ($\mathrm{kcal/m^3 °C}$) in the code. This value is valid for stainless steel.

(3) Froth level

Froth level is interporated from ΔU_{j+1} and ΔU_j, when ΔU_{j+1} exceeds ΔU_{crit}. ΔU_{j+1} is calculated with equation (21) and ΔU_{crit} is calculated with equation (30).

1.6 Summary of the thermo-hydrodynamic correlations used in each flow region and the governing equations for the core

Correlations used in this model are listed in Table 1 and governing equations for the core are listed in Table 2.

1.7 Thermal equations in the fuel rod

To simplify the calculation, it was assumed that :

(1) The radial temperature profile is flat, that is, the one point model can be adopted for the temperature calculation of the fuel rod and the axial heat conduction is negligible.

(2) In the quenched region, because of a small change of the fuel temperature, the stored energy release of the fuel rod is very small and the heat transferred from the fuel to the coolant is nearly the same as the heat generated in the fuel rod.

(3) As illustrated in Fig.1(b), the clad temperature rapidly decreases from T_Q to a quasi-steady-state temperature.

Therefore, in the quenched region, the wall temperature can be calculated without consideration of the stored energy release, i.e.,

$$S_F Q_F = SQ \quad , \tag{36}$$

where Q is the heat transfer rate per unit volume of the coolant channel and a function of the wall temperature and the coolant temperature, i.e.,

$$Q = f(T_W, T_\ell) \quad . \tag{37}$$

The thermal equation of the fuel rod can be written as,

$$S_F C_F \rho_F g \partial T_W / \partial t = S_F Q_F - SQ \quad . \tag{38}$$

In the unquenched region, the wall temperature T_W is calculated from equation (38) by giving the heat transfer rate Q ($= Q_g + Q_\ell$ in the dispersed flow region). In the quenched region, Q is calculated from

equation (38) by giving T_W determined from equation (37). In the quenching region, as illustrated in Fig.3, the additional heat, which is a fraction, A_{st}, of the total stored energy indicated as the hatched region, released at the quench front and transferred to unit flow area of coolant channel Q' can be obtained as follows :

$$SQ' = A_{st}\, S_F C_F \rho_F g (T_Q - T_W) U_Q \quad . \tag{39}$$

It is assumed that when the quench front enters the ith node, $(1 - A_{st})$ fraction of total stored energy of the ith node starts to be release at time constant τ.

2. System model

In an actual PWR, the water-steam mixture is considered to enter primary loops and evaporate in the steam generators and then the steam flows through the pumps which is estimated to give main pressure drop. Therefore, in the primary loops from the hot legs to the cold legs sp-stream from the ECC injection ports, the steam flow seems to be dominant. On the other hand, the injected water seems to accumulate in the bottom of the reactor vessel, that is, the lower part of the downcomer, the core and the lower plenum. Because of the low mass velocity of injected water, the frictional pressure head is negligible as compared with the gravitational pressure head in the downcomer and the core. Therefore, the motion of the water accumulated in the bottom of reactor vessel can be treated as the motion of a single phase liquid of collapsed water in this region.

It was assumed that (1) the motion of water in the bottom of a reactor vessel is one-dimensional, (2) the water forms a U-tube filled with a single phase liquid, and (3) both ends of the U-tube are connected with the primary loops where the equivalent single phase steam are flowing.

Our main objectives were to examine the possibility of stable and reasonable calculation with the above-mentioned model. Therefore, a simplified system model was introduced, that is, the entrained water from the core is completely separated and removed from the system and only steam from the core enters in a single loop with an orifice as a flow resistance.

The core and the downcomer are thought to be one-dimensional in the model. The schematic diagram of the model is simular to the system of FLECHT-SET phase A and is shown in Fig.4.

2.1 Basic equations and derivation of the final forms

Conservation equations of mass in the downcomer and the core are :

$$G_0 - A_D \rho_\ell \dot{x} = A_I \rho_\ell U_I \quad , \tag{40}$$

and $$A_I \rho_\ell U_I = A_c(\rho_\ell \dot{y} + G_{g\ out} + G_{\ell\ out}) \quad , \tag{41}$$

where G_0 is the injection mass flow rate into the system and $G_{g\ out}$ and $G_{\ell\ out}$ are the steam and liquid mass flow rate from the exit of the core, respectively.

Conservation equations of momentum in the primary loop, the downcomer, the lower plenum (or downcomer-core connecting pipe) and the core are

$$P_U - P_S = K_L\ (\rho_g/2)\ U_L^{\ 2} \quad , \tag{42}$$

$$\rho_\ell \frac{d}{dt}(x\dot{x}) = P_D - P_S - \rho_\ell g x - K_D(\rho_\ell/2)|\dot{x}|\dot{x} \quad , \tag{43}$$

$$\rho_\ell \frac{d}{dt}(L_I U_I) = P_D - P_I - K_I(\rho_\ell/2)|U_I|U_I \quad , \tag{44}$$

and $$\rho_\ell \frac{d}{dt}(y\dot{y}) = P_I - P_U - \rho_\ell g y - K_C(\rho_\ell/2)|U_C|U_C \quad , \tag{45}$$

where $U_C = \frac{A_I}{A_C} U_I$ and $x \leq x_{max}$.

Assuming the steam as an ideal gas, an equation of state in the upper plenum is :

$$V_U \frac{d\ P_U}{dt} = R\ T_U(A_C\ G_{g\ out} - A_L\ \rho_g\ U_L) \quad , \tag{46}$$

where V_U and T_U are the volume and the absolute temperature of the upper plenum respectively, R is a gas constant of ideal gas and T_U is assumed to be the saturation temperature.

Arranging the above equations, the following equations are derived :

$$U_I = (G_o - A_D \rho_\ell \dot{x}) / (A_I \rho_\ell) \quad , \tag{47}$$

$$YD = - \frac{A_D}{A_C} \dot{x} + \frac{G_o}{A_C \rho_\ell} - \frac{G_{\ell\ out} + G_{g\ out}}{A_C \rho_\ell} \quad , \tag{48}$$

$$U_C = \frac{A_I}{A_C} U_I \quad , \tag{49}$$

$$\begin{aligned} \ddot{x} = \{ & (P_U - P_S/\rho_\ell + (y - x)g + YD^2 - \dot{x}^2 \\ & + \frac{1}{2} (K_I |U_I| U_I + K_C |U_C| U_C - K_D |\dot{x}| \dot{x}) \\ & + \frac{1}{g \rho_\ell} \{ (\frac{L}{A_I} + \frac{y}{A_C}) \frac{d}{dt} G_o - \frac{\dot{y}}{A_c} \frac{d}{dt} (G_{g\ out} + G_{\ell\ out}) \} \\ & / (x + y \frac{A_D}{A_C} + L \frac{A_D}{A_I}) \end{aligned} \quad , \tag{50}$$

$$\dot{y} = YD \quad , \tag{51}$$

and $$\dot{P}_U = [\ RT_U \{ A_C G_{g\ out} - A_L \sqrt{\frac{2 \rho_g}{K_L}} \cdot \sqrt{P_U - P_S}\ \}] / V_U \quad . \tag{52}$$

Defining y_1, y_2, y_3 and y_4 as follows :

$$y_1 \equiv x, \quad y_2 \equiv \dot{x}, \quad y_3 \equiv P_U \quad \text{and} \quad y_4 \equiv y \quad ,$$

the above equations (47) to (52) can be written in the following forms, i.e.,

$$\frac{d}{dt} y_i = F_i(y_1, y_2, y_3, y_4) \quad , \quad (i = 1 \sim 4) \quad . \tag{53}$$

2.2 Coupling the core model with the system model

When G_o and a set of variables $Y \equiv (G_{g\ out}, G_{\ell\ out})$ are given, a set

of unknown variables $X \equiv (x, y, U_I, U_L, P_D, P_I, P_U)$ can be solved by equation (53).

The REFLA-1D core code can calculate, a ser of variables Y, when the core inlet temperature T_I, flooding rate U_I and pressure P_I are given. U_I and P_I are variables in X. In the REFLA-1D core code, physical properties refer to the core inlet pressure P_I. Therefore calculations can proceed as shown in Fig.5. In the system model, the Runge-Kutta-Gill method is used to solve the simultaneous equations (53) and using time step increments on the order of 5 msec, the calculations are repeated several times with same value of Y.

Table 1. Set of correlations used in flow regions

Region	Hydrodynamic Correlations	Heat Transfer Correlations
(1) Single Liquid Phase Flow/Subcooled Nucleate Boiling Region $Re = DeU_\ell/\nu_\ell$	$V = F\cdot 1/2\cdot\rho_\ell/De\cdot U_\ell^2$ $F = 0.3166\ Re^{-0.25}$ $(Re \leq 2400)$ $F = 64/Re$ $(Re < 2400)$ $\alpha = 0$	$Q_\ell = L/S\cdot\phi_B$ $\phi_B = 2.197(T_W - T_{sat})^4$ $\cdot\exp(1.54\times10^{-6}p)$ (Jens & Lottes)
(2) Saturated Two-Phase Flow Region	$V = 0$ $\Delta U = G_g/(\alpha_{yeh}\cdot\rho_g)$, where α_{yeh} is a void fraction calculated with Cunningham-Yeh's correlation[10]. α is calculated with Eq.(17).	Same as (1). $T_\ell = T_g = T_{sat}$
(3) Subcooled Film Boiling Region	$V = 0$ $\alpha = 0$	$Q_\ell = L/S\cdot h\cdot(T_W - T_{sat})$ $h = h_{sub} + h_R$ $h_{sub} = h_{sat}(1.0 + 0.025(T_{sat} - T_\ell))$ (Sudo[7]) h_{sat} : defined in (4) $h_R = E\,\varepsilon\,(T_W^4 - T_{sat}^4)/(T_W - T_{sat})$

Table 1. Continued

Region	Hydrodynamic Correlations	Heat Transfer Correlations
(4) Transition Flow Region	Same as (2).	$Q_\ell = L/S \cdot h \cdot (T_w - T_{sat})$ $h = h_{sat} + h_R$ $h = 0.94[\lambda_g^3 \, g(\rho_\ell - \rho_g) \cdot H_{fg} \cdot g / (L_Q \mu_g (T_w - T_{sat})]^{1/4} (1-\alpha)^{1/4}$ $h_R = E(1-\alpha)^{1/2} \, (T_w^4 - T_{sat}^4)/(T_w - T_{sat})$ $T_\ell = T_g = T_{sat}$ where the physical properties of vapor are defined for the mean temperature, $T_{MEAN} = (T_w + T_{sat})/2$
(5) Dispersed Flow Region (Two-step Model) $Re = DeU_g/\nu_g$ $Re_d = D_d \Delta U/\nu_g$	$V_g = (F \text{ of } (7)) \cdot \frac{\rho_g}{De} \frac{Ug^2}{2} - V_\ell$ $V_\ell = - \frac{n}{U_\ell} \cdot C_D \cdot \frac{1}{2} \cdot \rho_g \Delta U^2 \cdot \pi \cdot \frac{D_d^2}{4}$ $\frac{n}{U_\ell} = (1-\alpha)/\{\frac{4}{3}\pi (\frac{D_d}{2})^3\}$ $C_D = \max(27 \cdot Re^{-0.84}, \; 0.4)$ (Ingebo [8])	$Q_\ell = Q_{VD} + Q_{WD}$ Wall to Vapor : $Q_{WV} = Q$ of (7) Vapor to Droplet : Q_{VD} $= \frac{n}{U_\ell} \cdot \frac{\lambda_g \pi D_d^2}{D_d} Nu_{VD} \cdot (T_g - T_{sat})$ $Nu_{VD} = 2 + 0.34 Re_d^{0.566} Pr^{1/3} \quad (Re_d \leq 1800)$ $Nu_{VD} = 2 + 0.55 Re_d^{0.5} Pr^{1/3} \quad (Re_d < 1800)$

Table 1. Continued

Region	Hydrodynamic Correlations	Heat Transfer Correlations
(5) Dispersed Flow Region (Continued)	$We = W_{ec}$ where $W_e = \frac{\rho_g \cdot \Delta U^2 \cdot D_d}{\sigma}$ $\Delta U = \Delta U_{crit}$ α, ΔU_{crit}, Dd are calculated from eq.(17), (30) and (33) respectively.	Wall to Droplet : Q_{WD} $= \frac{L}{S} h_{RWD} \cdot (T_w - T_{sat})$ $h_{RWD} = E F_s \cdot \varepsilon (T_w^4 - T_{sat}^4)/(T_w - T_{sat})$ $F_s = \min(Sn/U_\ell \cdot \pi D_d^2/L, 1)$ $T_\ell = T_{sat}$
(6) Rewetted Flow Region	Same as (1) or (2).	Same as (1) or (2).
(7) Superheated Steam Flow Region $Re = DeU_g/\nu_g$	$V = F \cdot 1/2 \cdot \rho_g/De \cdot U_g^2$ $F = 0.3166Re^{-0.25}$ (Re $\geq$ 2400) $F = 64/Re$ (Re < 2400) $\alpha = 1$	$Q_{VW} = L/S \cdot \lambda_g/De \cdot Nu(T_w - T_g)$ $Nu = 0.023Re^{0.8}Pr^{0.4}$ (Re $\geq$ 2400) (Dittus-Buelter) $Nu = \max(1.077(RePrDe/Z)^{1/3}, 3.65)$ (Re < 2400)

Table 2. Summary of governing equations for core

$$G_{i+1} = G_i + (\Delta Z/\Delta t)\{(\rho_\ell - \rho_{gi}(t))\alpha_i(t) - (\rho_\ell - \rho_{gi}(t-\Delta t)\alpha_i(t-\Delta t)\}$$

$$T_{\ell i+1} = T_\ell(Z - U_\ell \Delta t,\ t - \Delta t) + Q_\ell \cdot \Delta t/(\rho_\ell\, g\, C\rho_\ell)$$

$$T_{gi+1} = T_x + (T_g(Z - U_g\Delta t,\ t - \Delta t) - T_x) \cdot \exp(-A \cdot B \cdot \Delta t)$$

$$A = 1/(\alpha\rho_g \cdot g \cdot C_{pg}) \ , \quad B = (h_{wv} + h_{vD})\frac{L}{S} \ ,$$

$$T_x = \frac{h_{wv}T_w + h_{vD}T_{sat}}{h_{vw} + h_{VD}} \ , \quad h_{wv} = Q_{wv}/(T_w - T_g) \ ,$$

$$h_{vD} = Q_{vD}/(T_g - T_{sat})$$

$$\dot{m} = \{Q_\ell\}/[\{H_{fg} + C_{pg} \cdot (T_g - T_{sat})\}g]$$

$$\rho_{gi+1} = \rho_{gsat} \cdot (T_{sat} + 273.16)/(T_{gi+1} + 273.16)$$

$$G_g = U_{goi} \cdot \rho_{gi} + \Delta Z \cdot \dot{m} - \frac{\Delta Z}{\Delta t}\ (\alpha_i(t)\rho_{gi}(t) - \alpha_i(t-\Delta t)\rho_{gi}(t-\Delta t))$$

$$U_{goi+1} = G_g/\rho_{gi+1}$$

$$U_{\ell o} = (G_{i+1} - G_g)/\rho_\ell$$

$$\Delta U = \min(\Delta U_1,\ \Delta U^{**}_{crit})$$

where $\Delta U_1 = U_{goi+1}/\alpha^{*}_{yeh}$

$$\alpha_{i+1} = \frac{1}{2}\left[\ 1 + \frac{C1+C2}{\Delta U} - \sqrt{1 + \frac{2(C2-C1)}{\Delta U} + \left(\frac{C1+C2}{\Delta U}\right)^2}\ \right]$$

$$C1 = U_{goi+1} \ , \qquad C2 = U_{\ell o}$$

if $C2 \leq 0$: $\alpha_{i+1} = \alpha_{yeh}$

$$DV_{i+1} = F_1 \cdot G^2_{gi+1}/(\alpha_{i+1} \cdot \rho_{gi+1}) + F_2(G_{i+1} - G_{gi+1})^2/\{(1-\alpha_{i+1}) \cdot \rho_\ell\}$$

$$\alpha_{i+1} = 0 \rightarrow F_1 = 0, \quad F_2 = 1$$

$$\left(\ \alpha_{1+1} = 1 \rightarrow F_1 = 1, \quad F_2 = 0 \ , \qquad F_1 = F_2 = 1\ \right)$$

$$P_{i+1} = P_i + \Delta Z(-g\{\alpha_{i+1}\cdot\rho_g + (1-\alpha_{i+1})\rho_\ell\} - V^{**})^{*} - (DV_{i+1} - DV_i)$$

$$U_{gi+1} = G_g/(\alpha_{i+1}\cdot\rho_\ell)$$

$$U_{\ell i+1} = (G_{i+1} - G_g)/\{(1-\alpha_{i+1})\cdot\rho_\ell\}$$

Note * $\alpha_{yeh} = 0.925\left(\frac{\rho_{gi+1}}{\rho_\ell}\right)^{0.239}\left[\frac{G_g/\rho_{gi+1}}{V_{bcr}}\right]^{a}$

where $a = 0.47 \quad G_g/\rho_{g_{i+1}}/V_{bcr} \leq 1$

$a = 0.67 \quad G_g/\rho_{g_{i+1}}/V_{bcr} < 1$

and $R_{bcr} = \left|\frac{1.53}{2/3}\right|^2\sqrt{\frac{\sigma}{g\,\rho_L}}$, $V_{bcr} = \frac{2}{3}\sqrt{g\,R_{bcr}}$

(Cunningham-Yeh's correlation[10])

** $\Delta U_{crit} = \min(\Delta U_2, \Delta U_3)$

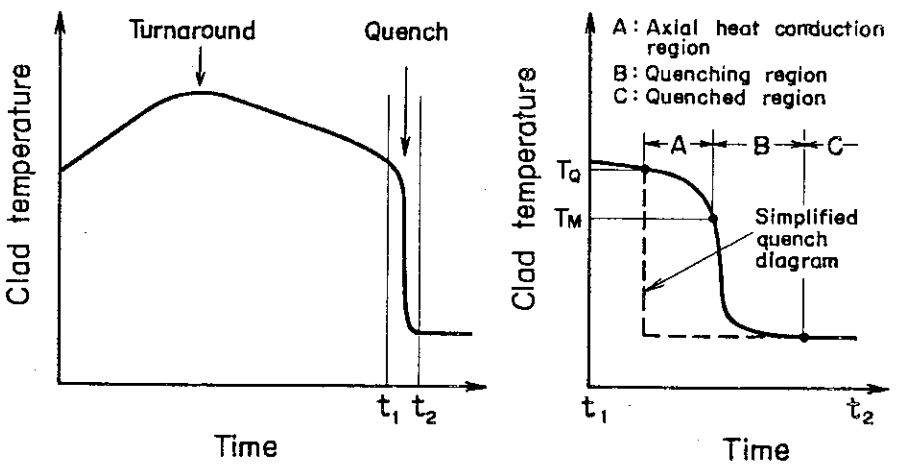
where $\Delta U_2 = 0.53713\cdot(\sigma\cdot W_{ec})^{0.3801}\rho_g^{-0.5868}$

$\nu_g^{-0.1736}\cdot(\rho_\ell\cdot g)^{0.2066}$

$$\Delta U_3 = 1.3512\cdot\left(\frac{\rho_\ell\cdot g\cdot\sigma\cdot W_{ec}}{\rho_g^2}\right)^{0.25}$$

$$Dd = \frac{W_{ec}\cdot\sigma}{\rho_g\cdot\Delta U_{crit}^2}$$

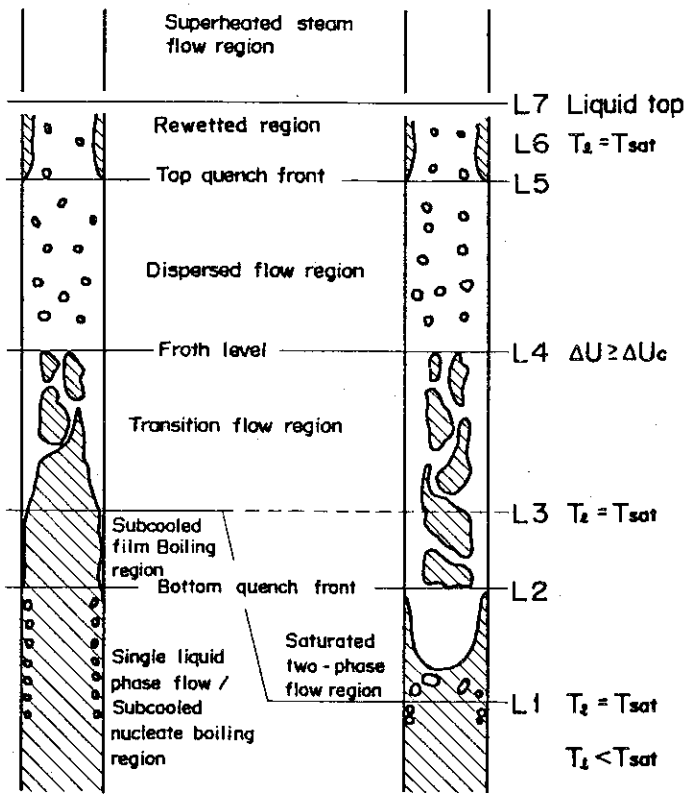
*** See Table 1



(a) Temperature-time history during reflood phase

(b) Detail of temperature-time history in quenching period

Fig. 1 Schematic diagram of temperature-time history during reflood phase



Type 1
$T_\ell < T_{sat}$
at quench front

Type 2
$T_\ell \geqq T_{sat}$
at quench front

Fig. 2 Reflood flow model and definition of boundaries

T_ℓ : Liquid Temperature
T_{sat} : Saturation Temperature
ΔU : Slip velocity between two-phases
ΔU_c : Critical slip velocity

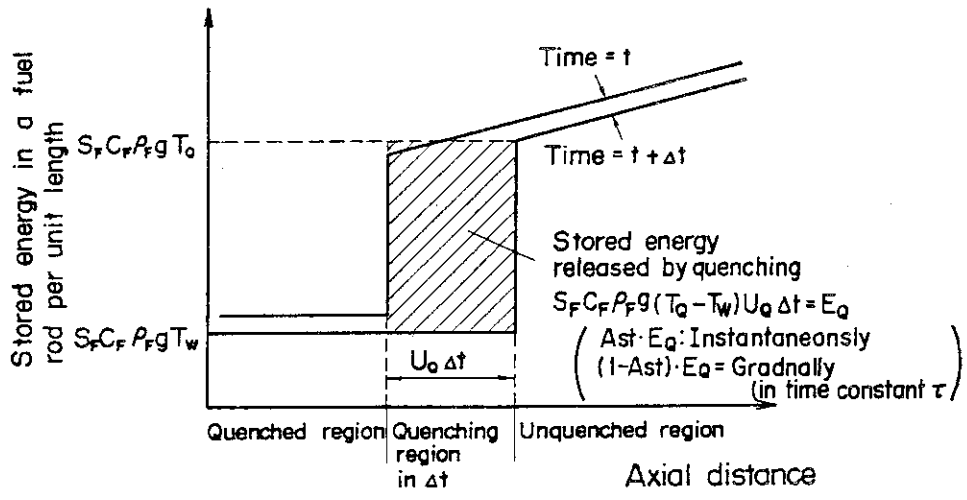


Fig.3 Release of stored energy from a fuel rod during quenching
(Heat capacity of a fuel rod per unit length $= S_F C_F \rho_F g$)

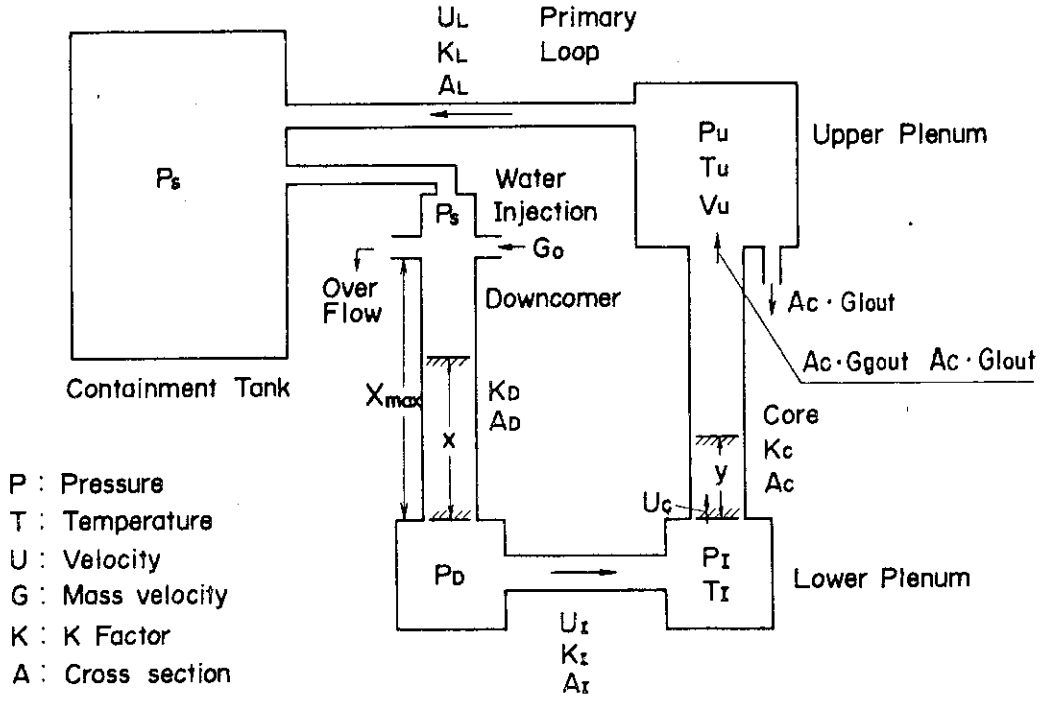


Fig. 4 Schematic diagram of system code model

III. Structure of computer program

1. Main structure

As shown in Fig.6, the program consists of (1) the control routine (MAIN), (2) the input routine, (3) the loop calculation routine (SYSTEM), (4) the core calculation routine (REFLA1) and (5) the output routine. Details of the program structure are indicated in Fig.7. The core calculation routine (REFLA1) is thought to have the capability of coupling with the RELAP4 code with a two-noded core and the data necessary for coupling with RELAP4 and transferred with arguments. These data include the core thermo-hydrodynamic data averaged into upper and lower halves of the core and the mass flux from exit of the core to provide information for the calculation of RELAP4. If a suitable interface is provided between RELAP type code and the REFLA1 core calculation subroutine, the coupling is possible[12]. In Table 3, the information of the data transfer are listed.

In Fig.8, the flow diagram of the REFLA-1D system code is shown and the concept of the data flow is indicated in Fig.9.

2. Structure of core analysis routine

A flow diagram of the REFLA1 core analysis subroutine is shown in Fig.10. The concept of the calculational sequence is as follows:

(1) Using the heat transfer coefficient from the hydrodynamic conditions of the previous time step, the fuel temperature profile is calculated. This process is repeated until an initiation criteria of the reflood phase is established.

(2) The boundaries of the bottom quench fronts L2 is calculated.

(3) The thermo-hydrodynamic quantities of the quenched and unquenched region are calculated from the bottom of core upward while checking the bulk boiling initiation point L1, L6, the transition point to dispersed flow (froth level) L4 and the liquid top L7.

(4) If L7 is lower than L2 or L4, L2 or L4 is updated to L7 respectively.

(5) In the dispersed flow region and the superheated steam flow, region, the thermo-hydrodynamic quentities are calculated.

(6) When the calculation to the top of core is completed, the calculated data are stored, printed and plotted, if necessary.

The thermo-hydrodynamic calculations are made in the subroutines

corresponding to flow regimes, i.e., : 1) Single phase flow regime (SINGLF), 2) Subcooled film boiling regime (SINGLF), 3) Saturated two-phase flow regime (SATTPF), 4) Transition flow regime (GRNSRM), 5) Dispersed flow regime (DISPRM) and 6) Superheated steam flow regime (SPHTRM).

In each flow regime subroutine, the following sequench is made in each axial node :

(1) The calculation of the heat transfer coefficient.
(2) The calculation of the fluid temperature or the quality from the energy equation.
(3) The mass and volumetric velocities from the mass equation (in MASBAL subroutine).
(4) The void fraction from a correlation (in VOIDCL subroutine).
(5) The check of the existence of a liquid top and the change of flow regime (in MASBAL subroutine).
(6) The calculation of the pressure drop from the momentum equation (in PCCAL subroutine).
(7) Rearrangement of the calculated boundaries (in LIQTOP subroutine).

In Table 4, I/OS of subroutines for the core thermo-hydrodynamic calculations are listed. And in Table 5, the definitions of the boundaries are listed. In order to express the boundary elevation, IBN and DBN defined in Fig.11 are used. When boundaries do not exist, the void fraction of a node is considered to be a value at the lower end of the node. If a boundary exists in a node, the void fraction above the boundary is considered to be a value at the boundary. These relations are illustrated in Fig.12.

In Tables 6 and 7, the definitions of the subroutine names and variables in the REFLA1 core analysis subroutine are listed respectively.

Table 3 Information of data transfer from/to REFLA1 subroutine

1) Calling Sequence

CALL REFLA1 (TIME, TIMERF, DTS, PIN, PŌUT, CMASS, QMAX, ULIN, TLIN, ULŌUT, UGŌUT, AGŌUT, TLŌUT, TGŌUT, P, HT, AG, TW, PHI, DPHED, DPFRC)

2) Definition of Variables

	TIME	Inner Clock of REFLA 1	hr
*	TIMERF	Clock of MAIN (Reflood Time)	sec
*	DTS	Time Mesh of REFLA 1	sec
*	PIN	Core Inlet Pressure	kg/m^2
	PŌUT	Core Outlet Pressure	kg/m^2
	CMASS	Accumulated Coolant Weight in Core per Unit Coolant Area	kg/m^2
*	QMAX	Heat Generation Rate at Midplane of Core per Unit Volume of Fuel	$kcal/m^2hr$
*	ULIN	Core Inlet Velocity	cm/sec
*	TLIN	Core Inlet Temperature of Liquid	°C
	ULŌUT	Core Outlet Velocity of Liquid	m/hr
	UGŌUT	Core Outlet Velocity of Vapor	m/hr
	AGŌUT	Core Outlet Void Fraction	-
	TLŌUT	Core Outlet Temperature of Liquid	°C
	TGŌUT	Core Outlet Temperature of Vapor	°C
	P(91)	Core Pressure Array	kg/m^2
	HT(91)	Heat Transfer Coefficient Array	$kcal/m^2hr°C$
	AG(91)	Void Fraction Array	-
	TW(91)	Wall Temperature Array	°C

PHI(91)	Heat Flux Array	$kcal/m^2hr$
DPHED(2)	Static Heads of Upper and Lower Halves of Core	kg/m^2
DPFRC(2)	Friction Heads of Upper and Lower Halves of Core	kg/m^2

<COMMON Variables>

/REF/IEND, NFLAG

1: stop　　1: Print of REFLA1

0: cont.　　0: not

/MAINS 3/ DPDWN*, DPLOOP*, DPTS*

DPDWN	Differential Pressure Head (ΔP Head) of Downcomer (m Aq.)	m
DPLOOP	ΔP Head of Loop	m
DPTS	ΔP Head of Core	m

Note: Symbol * indicates the variables determined from outside of REFLA1 subroutine.

Table 4 I/Os of subroutines for core thermo-hydrodynamic calculation

Subroutine name		Input	Output
MASBAL	JOB=1	G_i(G(I)) ρ_{gi}(RG(I)) α_i(AG(I))	G_{i+1}(G(I+1))
	JOB=2	$\int \dot{m} dz$(QDOT)	G_g(GGAS)
	JOB=3	(CREST(I)) α_i(AG(I)) $\int \dot{m} dz$(QDOT)	(CREST(I+1))
	JOB=4		Liquid top L7 (DBX)
	JOB=5	$\int \dot{m} dz$(QDOT)	G_{gQ}(GGASU)
	JOB=6	(CTOTAL(I)) α_i(AG(I))	(CTOTAL(I+1))
VOIDCL		G_g(GGAS) G_{i+1}(G(I+1))	α_{i+1}(AG(I+1)) U_{goi+1}(UGO(I+1)) U_{gi+1}(UG(I+1)) $U_{\ell i+1}$(UL(I+1))
PCCAL		G_{i+1}(G(I+1)) $U_{go_{i+1}}$(UGO(I+1)) $\rho_{g_{i+1}}$(RG(I+1))	ΔP_{i+1}(PC(I+1)) DV_i(DV(I)) DV_{i+1}(DV(I+1))

Table 5 Definition of boundaries

L1 : Bulk boiling point

L2 : Quench front

L3 : Start point of transition flow

L4 : Start point of dispersed flow (froth level)

L5 : Start point of rewetted region

L6 : Start point of bulk boiling in the rewetted region

L7 : Start point of superheated steam flow, i.e. upper end of the water level (liquid top)

Table 6 Definition of subroutine names

INPUT	Print routine of input cards
DPRINT	Input routine, unit conversion and list of input
KEIJŌ	Stored data of geometry for system calculation
KEIPRI	Print routine of system calculation conditions
FULIN(f)	Calculation of core inlet flow rate in the case of forced flooding
REFLA1	Subroutine of core thermo-hydrodynamics
UGFUNC	Calculation of core outlet gas velocity for checking system calculation
AMZERO(f)	Calculation of coolant injection mass flow rate into system
SYSTEM	Subroutine to calculate the system dynamics
FQT(f)	Normalized power decay IDECAY = 1 : Shire's × 1.2, 2 : FLECHT·B(7 × 7) 3 : FLECHT A (10 × 10), 4 : CONSTANT 5 : FLECHT D (10 × 10)
SUB	Subroutine for definition of functions to be solved in Runge-Kutta-Gill routine
SPKGS	Runge-Kutta-Gill routine built in FACŌM computer
DWODOT(f)	Calculation of time differential of core outlet mass flow rate (= dG_{out}/dt)
AMZDOT(f)	Calculation of time differential of coolant injection mass flow rate (= dG_{o}/dt)
UNITC, and UNITC1	Subroutine to change the name of the final table in the case of IAXMŌD = 4 or 5 and in the case of IAXMŌD = 3, respectively

FCF(f)	Calculating heat capacity of heater rod for various experiments (controlled by AXMŌD)
SPEZ	Physical properties of materials for heater rods and fuel rods
LOWPASS	Subroutine to make smoothing the quench velocity
BPRINT	Subroutine to list the calculated variables (for debuging)
PLŌT	CALCOMP plotter routine built in FACŌM computor
MASBAL	Mass balance calculation for total mass velocity G, gas mass velocity GGAS, finding liquid top L7, rest of water mass in upper part of core CREST, and accumulated water mass in lower part of core CTOTAL
PCCAL	Differential pressure calculation in DZ of core PC
LIQTOP	Subroutine for calculation of liquid top and rearrangement of hydrodynamic variables
VOIDCL	Void fraction calculation AG and determination some hydrodynamic variables AG, DD, CN, UG, UGŌ, UL, DU(3), DU(1)
ITELE(f)	Determining the thermo-couple elevation of data to be stored as calculated results (elevations are input by "DATA" in the FUNCTION and controlled by AXMŌD)
PTABLE	Subroutine to generate the physical properties of water and steam at some temperatures and the some constants
PPRŌP	Subroutine to interporate the physical properties at the given system pressure

PRINT 1　Output routine by the following form

Title (32 letters)

Name (16 letters)	Value	Unit (8 letters)
.	.	.
.	.	.
.	.	.
.	.	.

PRINT 2　Output routine by the following form

Title

Name	Name	Name	.....
(Unit)	(Unit)	(Unit)	.....
Value	Value	Value	.....
.	.	.	
.	.	.	
.	.	.	
.	.	.	
.	.	.	

FUELTP　Fuel heat-up calculation routine by one-point approximation for each axial node

FCP(f)　Routine for generating the function of axial heat capacity distribution of fuel rod (controlled by AXMŌD)

PX(f)　Routine for generating the function of axial heat rate distribution of fuel rod (controlled by AXMŌD)

SINGLF　Subroutine for thermo-hydrodynamic calculation in the single liquid phase flow (including rewetted single liquid phase flow) regime and the subcooled film boiling regime

SATTPF　Subroutine for thermo-hydrodynamic calculation in the saturated two phase flow (including rewetted two-phase flow) regime

TRNSRM	Subroutine for thermo-hydrodynamic calculation in the dispersed flow regime
SPHTRM	Subroutine for thermo-hydrodynamic calculation in the superheated steam flow regime
SBHCL	Routine for calculation of heat transfer coefficient in the single liquid phase flow regime
FTWL(f)	Routine for calculation of friction coefficient multiplied by Reynolds number in the single liquid phase flow regime
SBHR	Routine for calculation of radiation heat transfer rate in the subcooled film boiling regime, the transition flow regime and the dispersed flow regime
HIA(f)	Routine for calculation of the saturated film boiling heat transfer coefficient in the subcooled film boiling regime and the transition flow regime. (In the subcooled film boiling regime, the factor for subcooling is multiplied in the subroutine SINGLF)
SBHCV	Routine for calculation of heat transfer coefficient of the single vapor flow in the dispersed flow regime and the superheated steam flow regime
SBHSP	Routine for calculation of heat transfer coefficient of the droplets in the steam flow of the dispersed flow regime
FLD(f)	Routine for calculation of the drag coefficient of the droplet (assumed as sphere) multiplied by Reynolds number of droplet in the dispersed flow regime

FTW(f)	Routine for calculation of the friction force* at the wall of the flow channel in the dispersed flow regime and the superheated steam flow regime (* Actually the force is multiplied by Reynolds number)
DPHDFR	Routine for calculation of static head and friction head of upper and lower half of core
SPLOT	Plotter routine resistered in FACOM computer of JAERI
VIS(f)	Routine for calculation of the dynamic viscosity in the absolute unit (kg*/mh) (To convert the gravitational mass unit, this value should be deviated the value of the acceleration of gravity)

Table 7 Definition of variables in REFLA1 core analysis subroutine

AG1(91)		Void Fraction (Old)	-
AG (91)	α	Void Fraction	-
HR (91)	$(\gamma\phi)$	Radiation Heat Transfer Rate	$kcal/m^3h$
TW (91)	Tw	Wall Temperature	°C
RE (91)	Re	Raynolds Number	-
UG (91)	Ug	Vapor Velocity	m/h
UL (91)	Ul	Liquid Velocity	m/h
HCV(91)	$(\gamma\phi)$	Convective Heat Transfer Rate	$kcal/m^3h$
HT (91)	h	Total Heat Transfer Coeff.	$kcal/m^2h°C$
Q (91)	$\dot{Q}$	Transferred Mass from Liquid to Vapor	kgh/m^4
DD (91)	Dd	Droplet Diameter	m
HSP(91)	$(\gamma\phi)_{VD}$	Heat Transfer Rate from Vapor to Droplet	$kcal/m^3h$
TW1(91)		Wall Temperature (Old)	°C
WE (91)	We	Weber Number	-
CN (91)	n	Droplet Number Density	$1/m^2h$
G (91)	G	Mass Velocity	kgh/m^3
X (91)	X	Quality	-
TG (91)	Tg	Vapor Temperature	°C
RG (91)	ρ_g	Density of Vapor	kgh^2/m^4
DV (91)	DV	Variable defined by Eq.(16)	-
PC (91)	P	Pressure in Core	kg/m^2
TL (91)	Tl	Liquid Temperature	°C
TG1(91)		Vapor Temperature (Old)	°C
HG1(91)		Enthalpy of Vapor (Old)	kcal/kg

DU (3)	Δu	Slip Velocity of Droplet (DU(1), DU(2) Critical, DU(3) Old)	m/h
TF1(10,91)		Local Fuel Temp. (Old)	°C
TF2(10,91)		Local Fuel Temp.	°C
SCD(91)			
SC1(91)			
SC2(91)			
SC3(91)			
SC4(91)			
Q2 (91)		Power Distribution	kcal/h.m
PA (91)			
FR (91)			
TSAT(10)		Saturation Temperature	°C
VŌLL(10)		Specific Volume of Water	m^3/kg
VŌLG(10)		Specific Volume of Vapor	m^3/kg
HTFG(10)		Latent Heat of Water	kcal/kg
VISG (6)		Viscosity of Vapor	kgh/m^2
VISL (6)		Viscosity of Water	kgh/m^2
RAMG (6)		Heat Conductivity of Vapor	kcal/mh°C
RAML (6)		Heat Conductivity of Water	kcal/mh°C
PRNG (6)		Prandtl Number of Vapor	-
PRNL (6)		Prandtl Number of Water	-
STNL (6)		Surface Tension of Water	kg/m
RŌUG (6)		Density of Vapor	kgh^2/m^4
RŌUL (6)		Density of Water	kgh^2/m^4

The other dimensional variables are in Main and Plotter subroutines.

GA	g	Acceleration of Gravity	m/h^2
SIGM		Stefan Boltzmann Constant	kcal
PAI	π		-
DIA		Diameter of Fuel Rod	m
PITCH		Pitch of Fuel Rod Array	m
CLENG		Length of Core	m
DZ	dz	Inclement of Axial Length	m
SŌ	S	Cross Section of Flow Channel	m^2
CL	Cl	Wetting Perimeter	m
DE	De	Equivalent Diameter	m
N	N	Number of Axial Elements	
N1	N+1		
IFBMŌD			
WEC	Wec	Critical Weber Number	-
WEC 1			-
DTS		Inclement of Time in sec.	sec
TPRINT		Time Interval for Data Store	sec
VŌL		Lower Plenum Volume for One Channel	m^3
TQ		Rewetting Temperature	°C
P		System Pressure	kg/m^2

TS	Tsat	Saturation Temp.	°C
RGST	ρ_{gst}	Density of Vapor at the Saturation Temp.	kgh^2/m^4
RL	ρ_{ℓ}	Density of Liquid	kgh^2/m^4
HFG	H_{fg}	Heat of Evaporation	kcal/kg
PRN	Pr	Prandtl Number	-
RAM	λ	Thermal Conductivity	kcal/mh°C
DYV	μ	Dynamic Viscosity	kgh/m^2
ST	σ	Surface Tension	kg/m
TIME		Time in hour	
TIMES		Time in sec.	
ULIB 7		Velocity of Liquid Top	
CKF		Heat Conductivity of Fuel	kcal/mh°C
DF		Density of Fuel	kg/m^3
CF		Specific Heat of Fuel	kcal/kg°C
QMAX		Heat Generation Rate of Fuel in the Unit Volume	$kcal/m^3h$

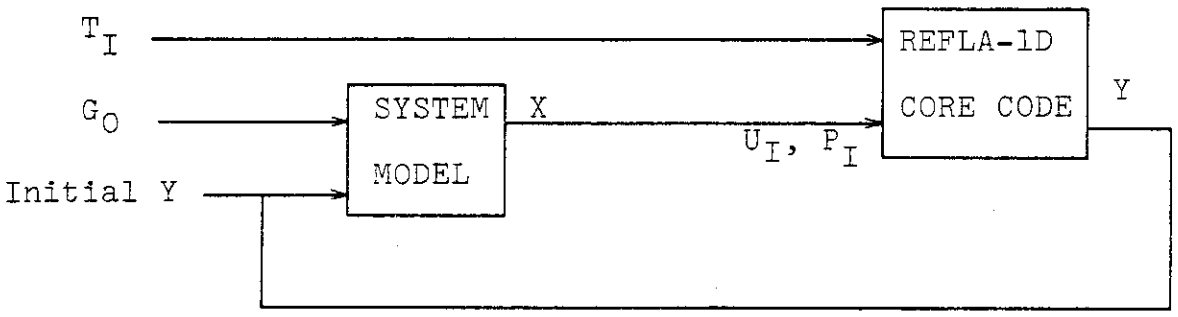


Fig.5 System calculation procedure

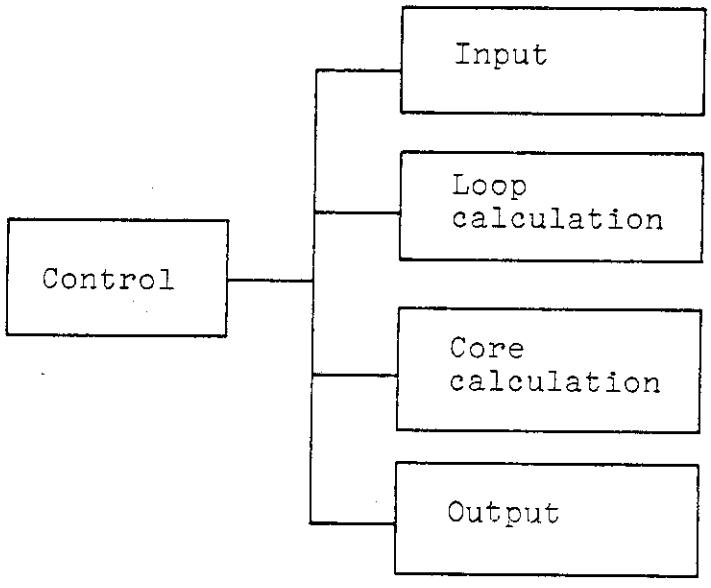
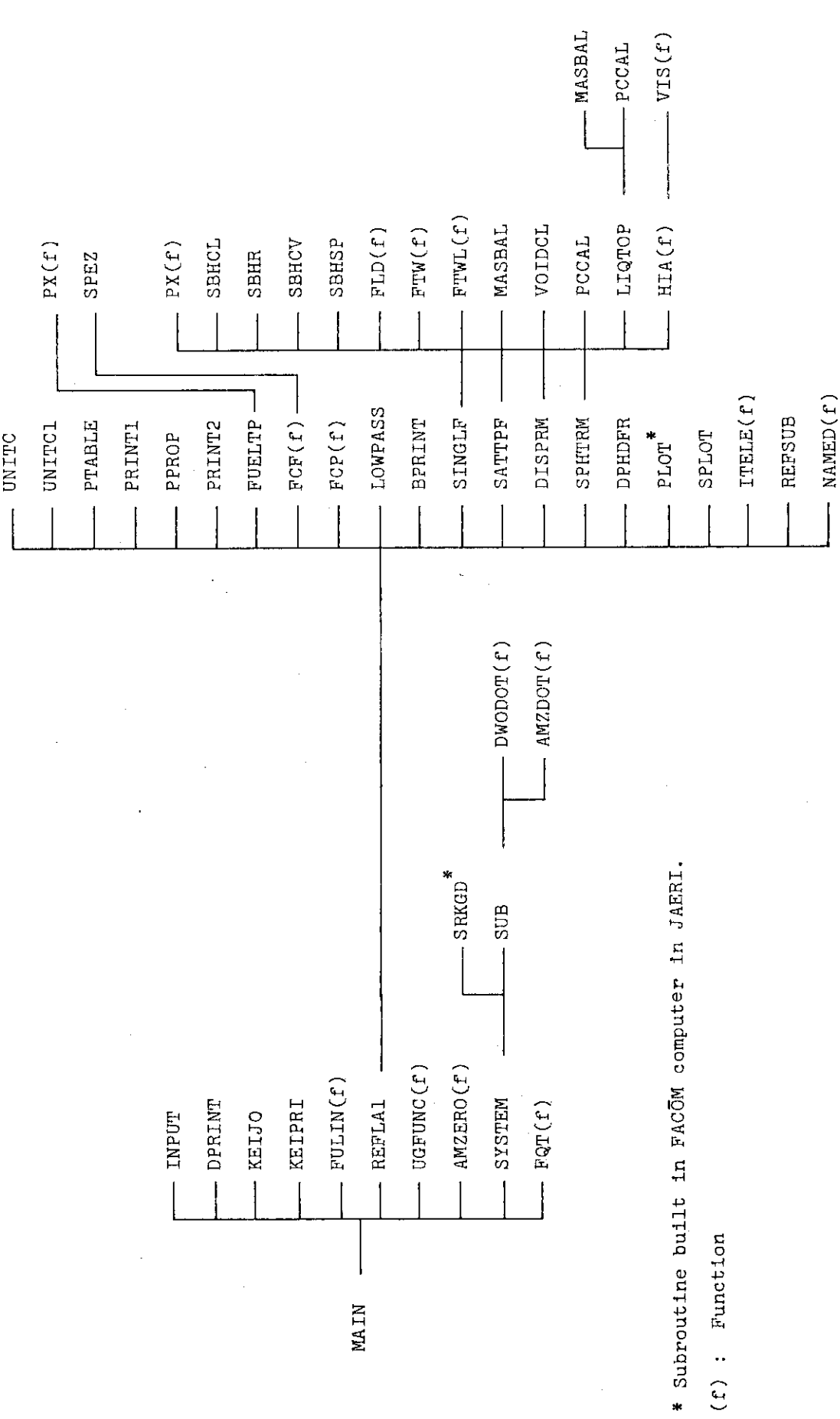


Fig.6 Main structure of REFLA-1D



* Subroutine built in FACOM computer in JAERI.

(f) : Function

Fig.7. Details of program structure

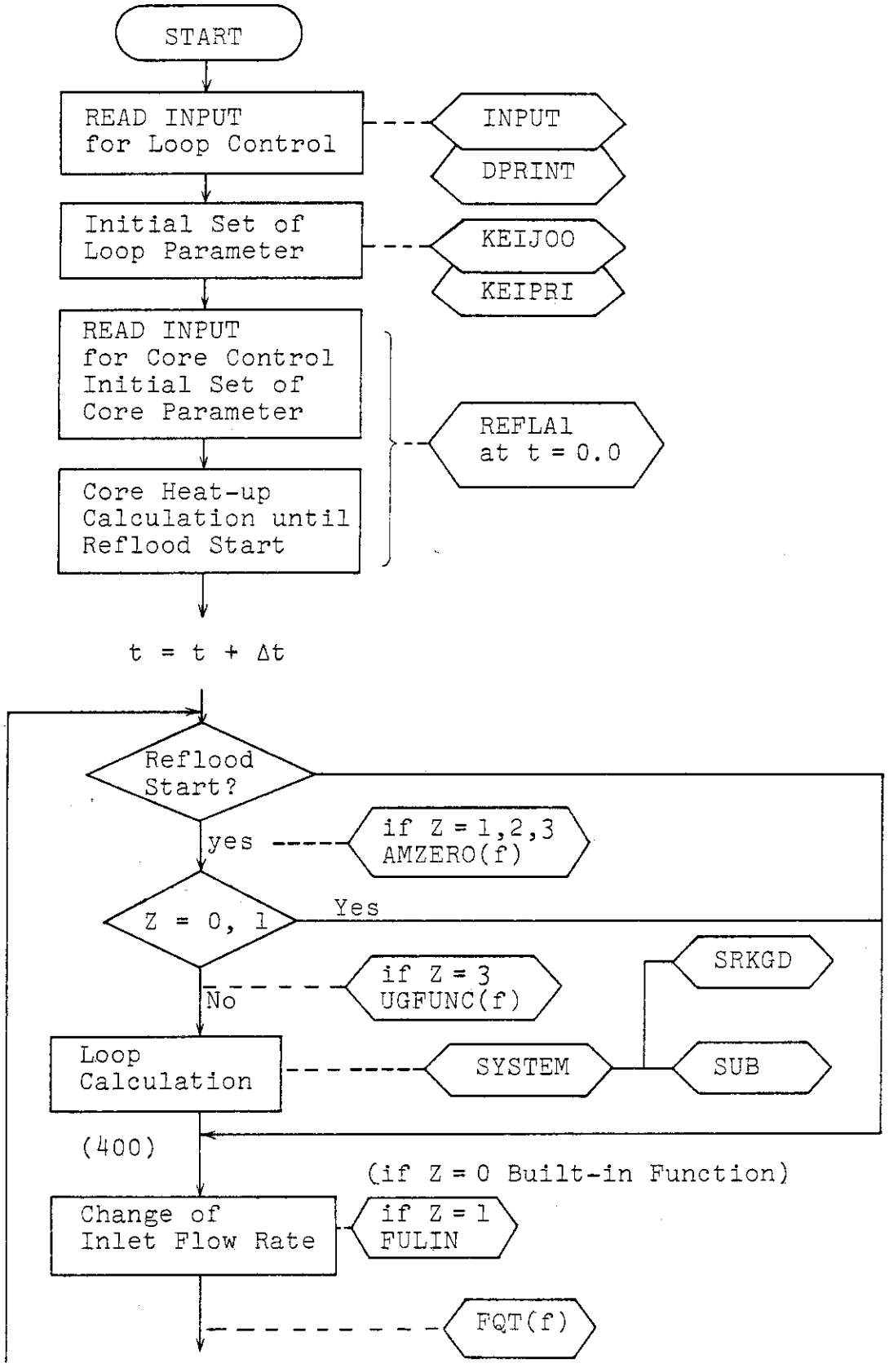
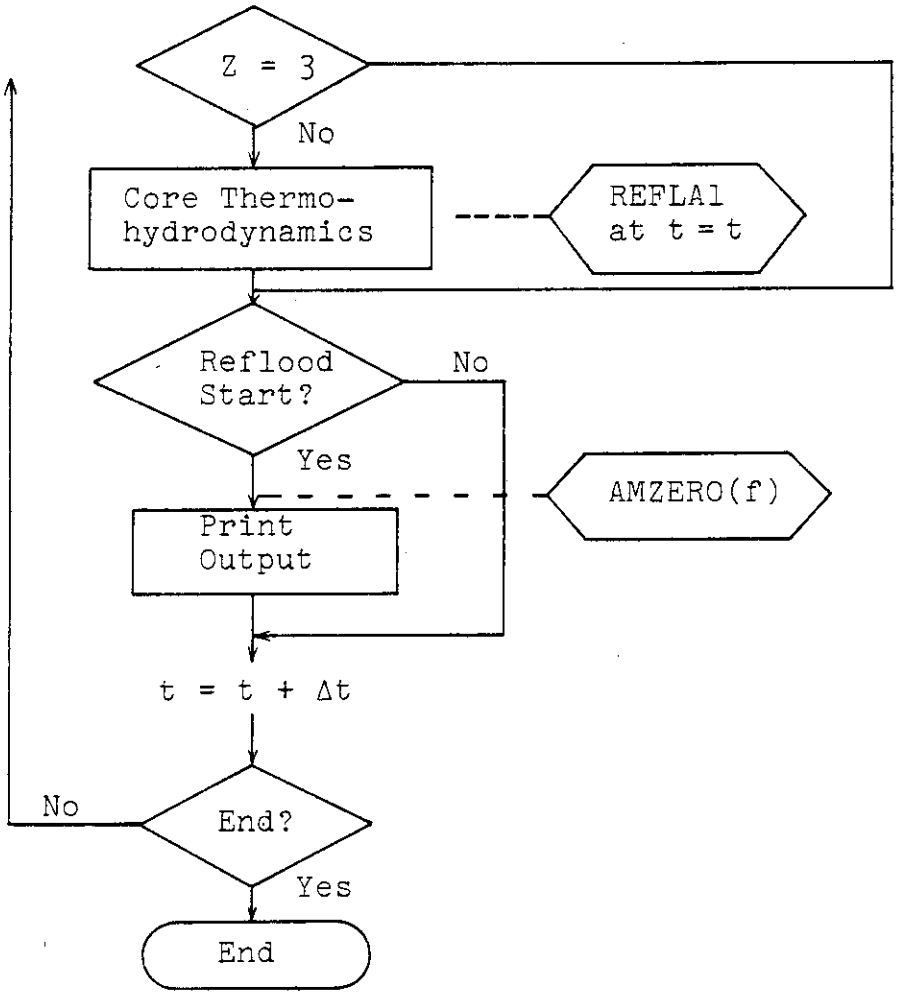
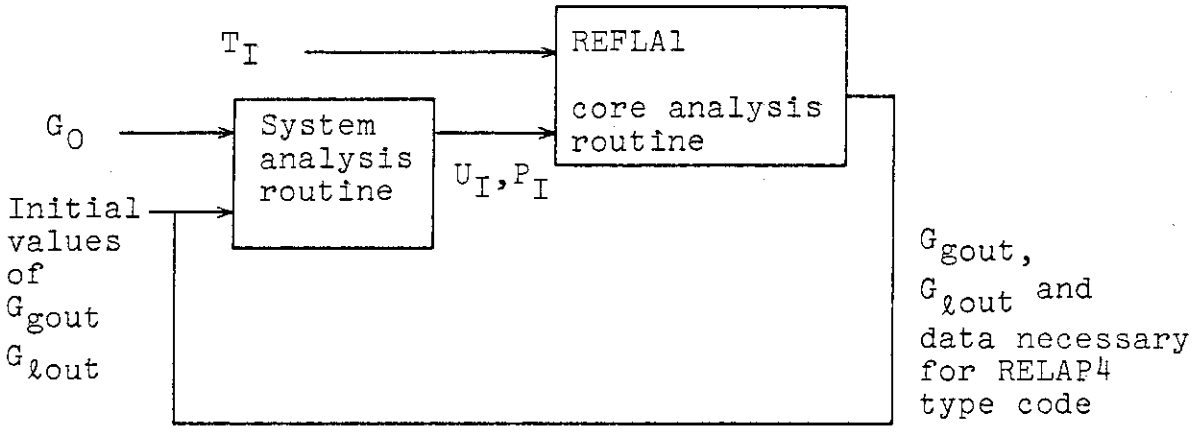


Fig.8　Flow diagram of REFLA-1D system code

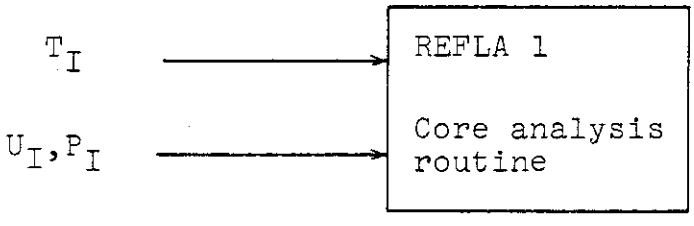


* SRKGD
Runge-Kutta-Gill
method subroutine

Fig.8 Continued



(a) Gravity feed system calculation



(b) Forced feed core calculation

Fig.9 Concept of data flow in REFLA-1D

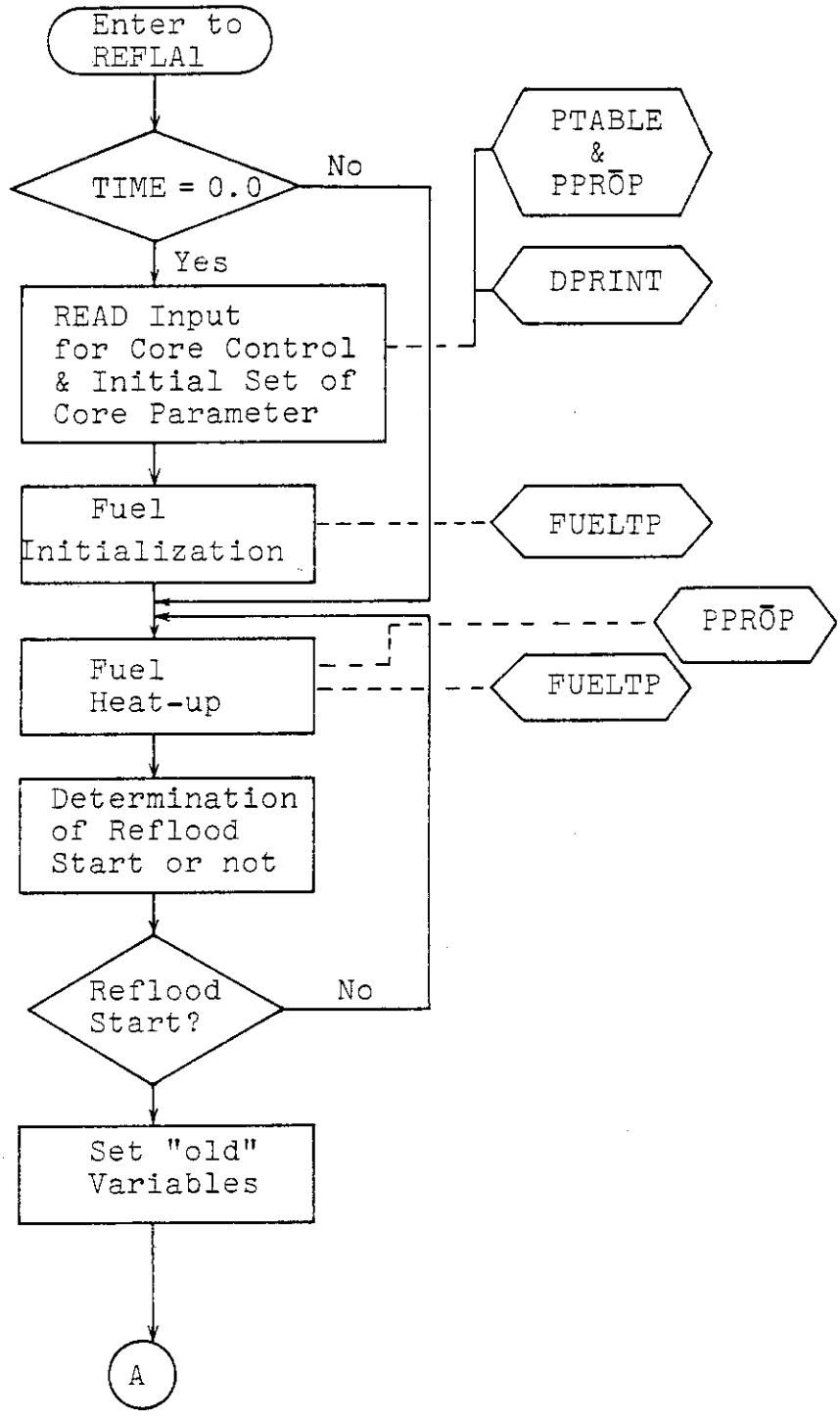


Fig.10 Flow diagram of REFLA1 core analysis subroutine

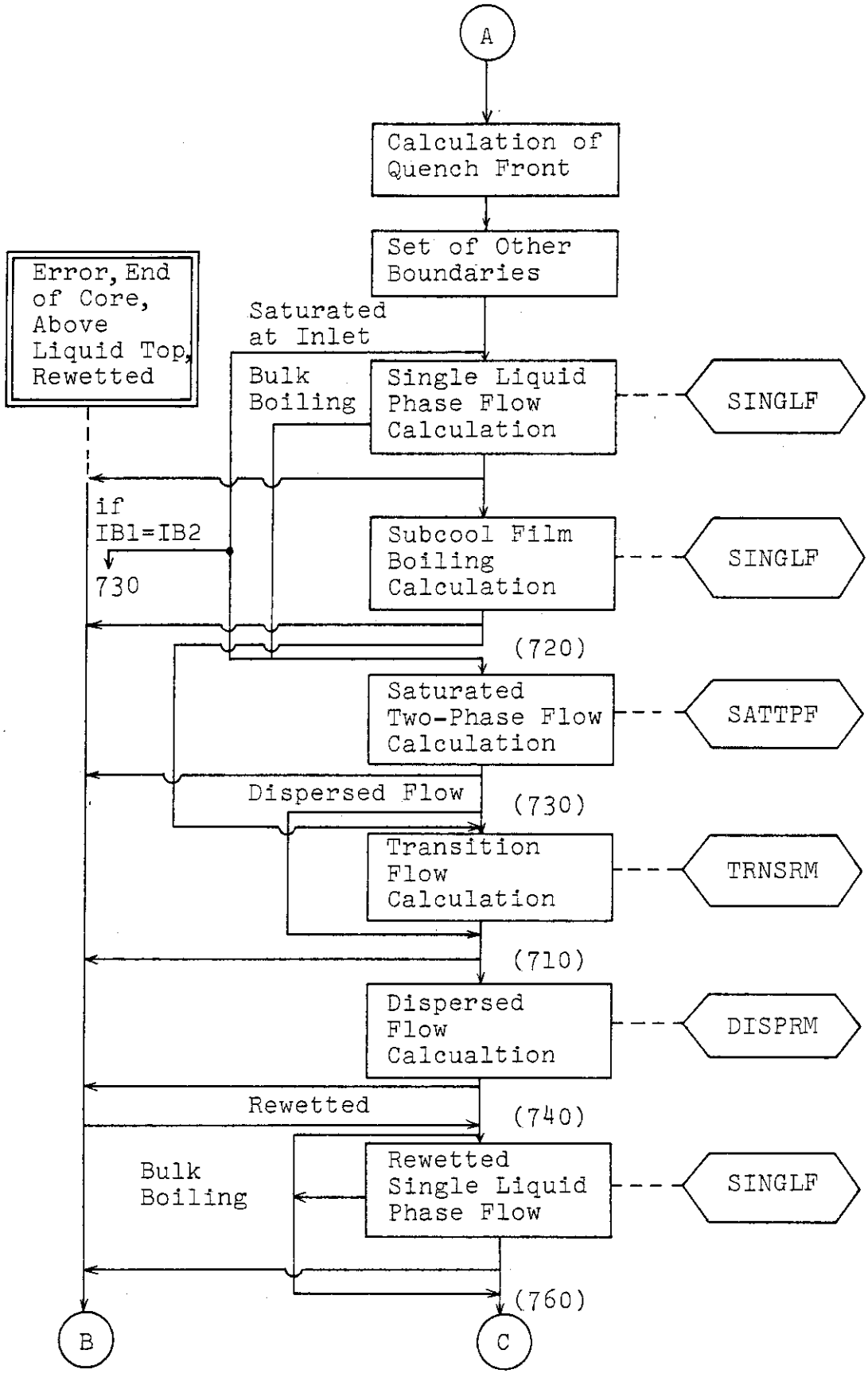


Fig.10 Continued

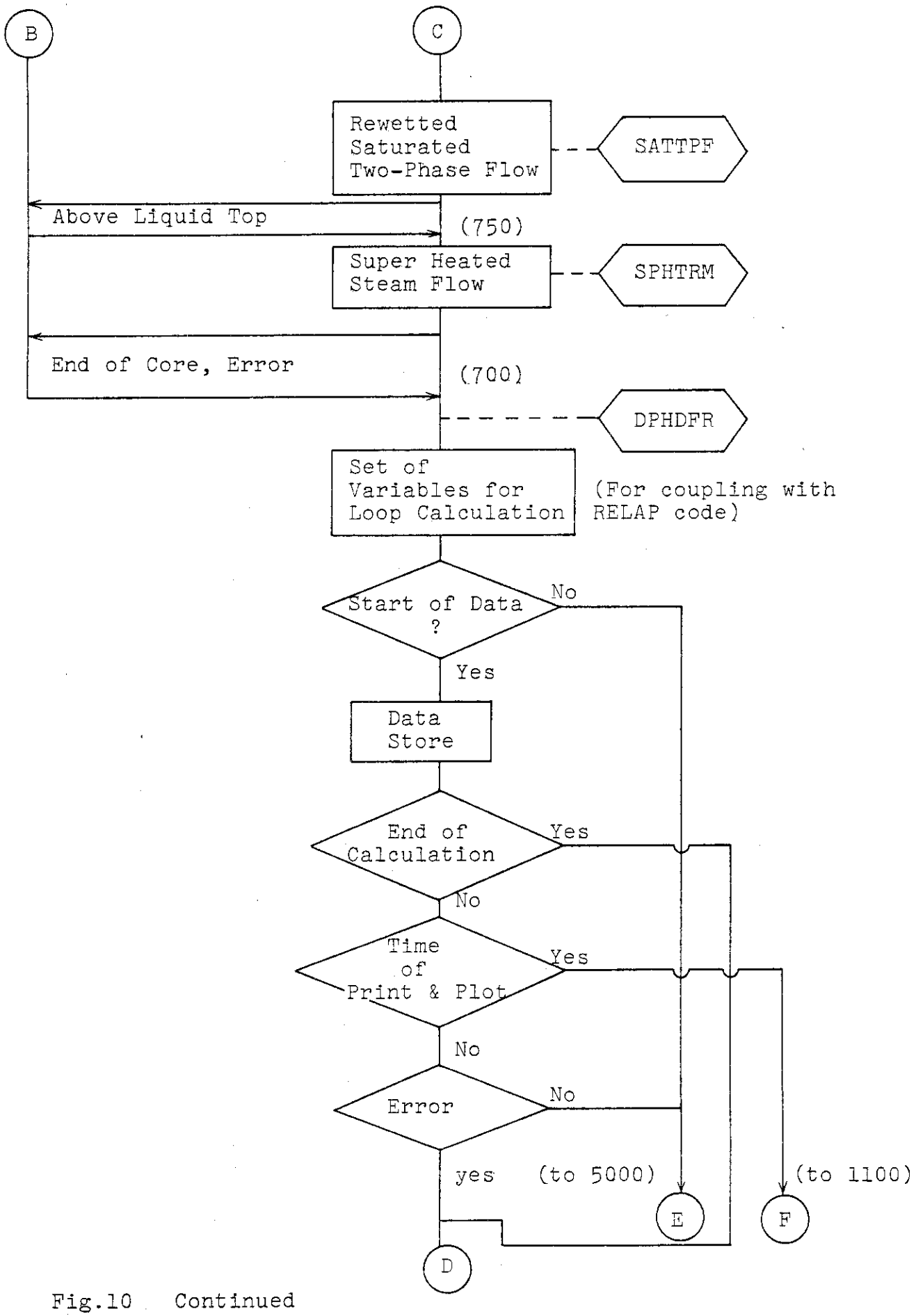


Fig.10 Continued

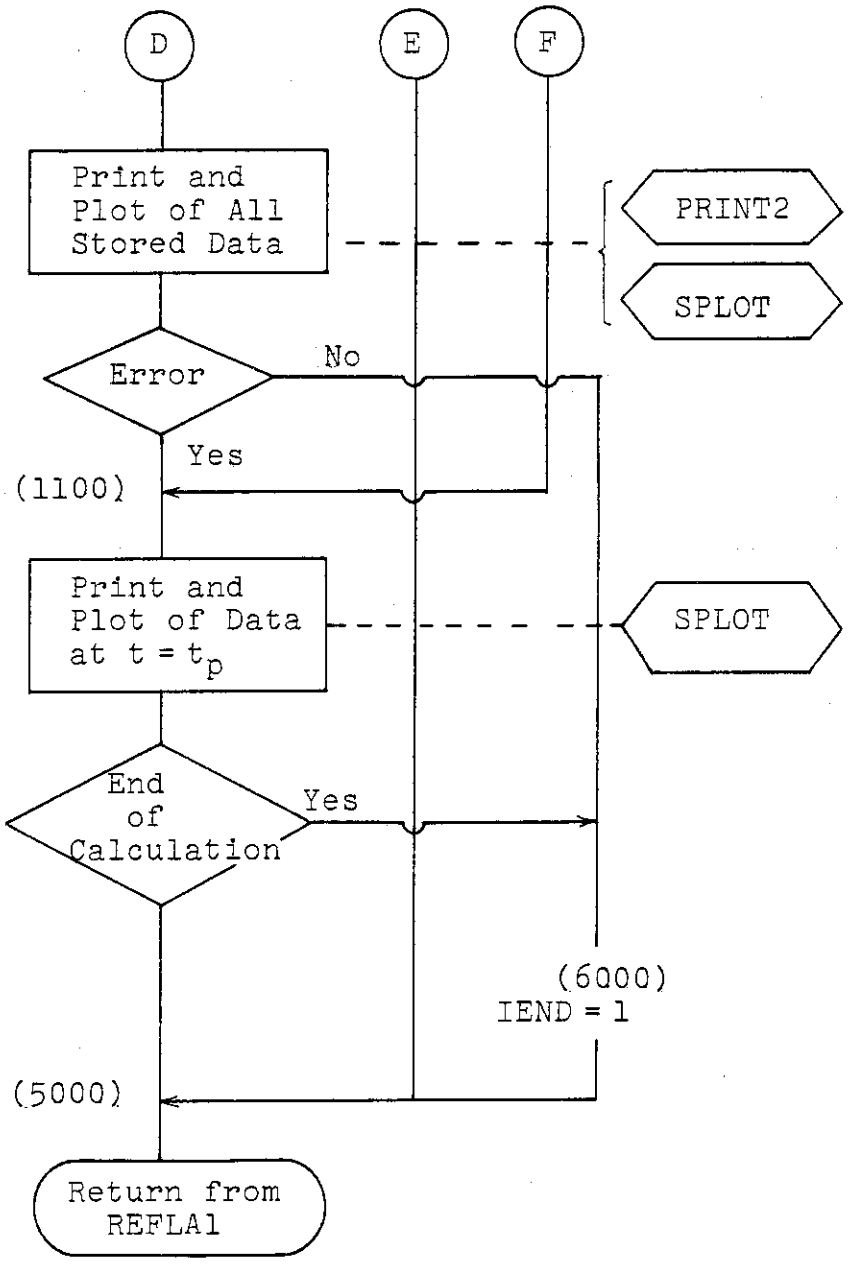


Fig.10 Continued

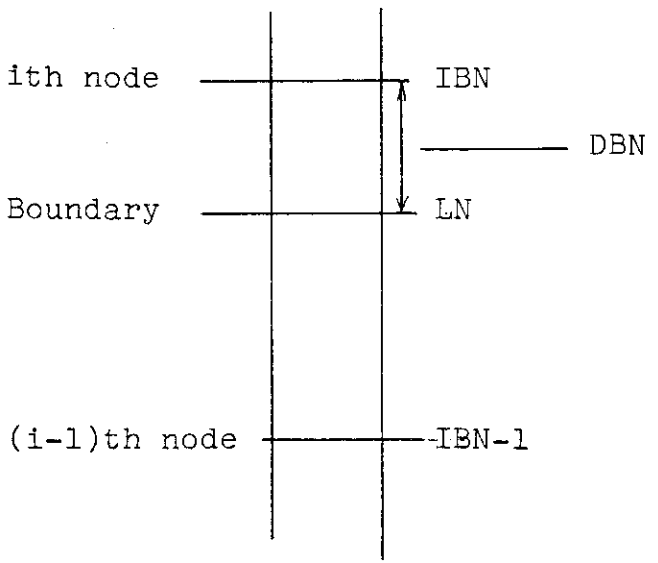


Fig.11 Definition of IBN and DBN

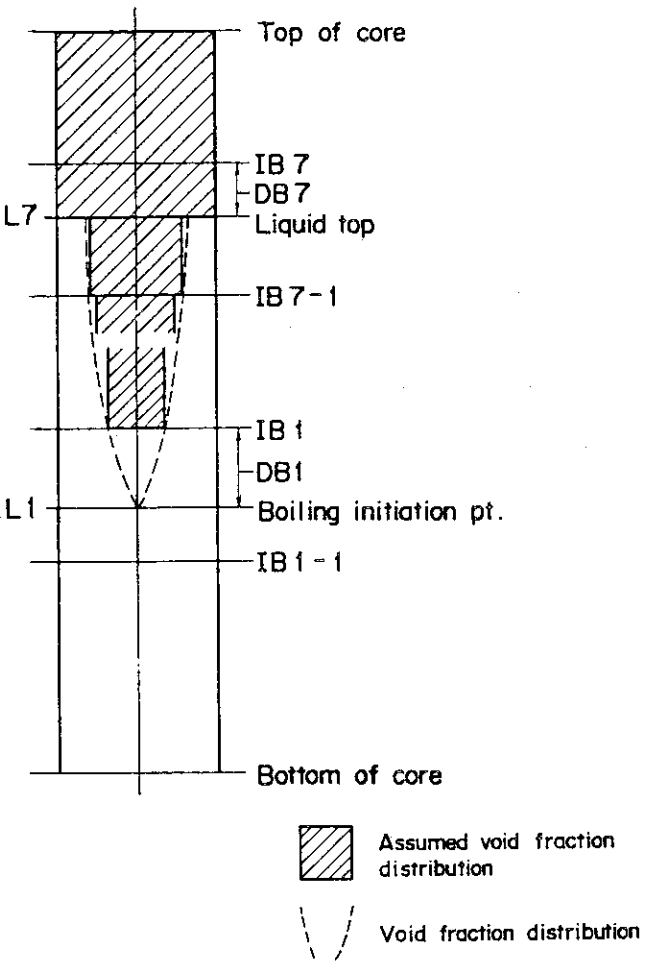


Fig. 12 Assumed void fraction distribution and definition of IB 1, IB 7, DB 1, and DB 7

IV. Application information

For the calculation with REFLA-1D an input deck in a specified from at must be prepared. In this chapter, the information of the input from at definition of input variables, constants defined in this code and the explanation of the output are described.

1. Form of input data

The form of the input data is shown in Table 8, and there are many dummy columns in it. The description of the input variables are listed in Table 9.

2. Control sequence of calculation

The calculation is controlled based on the sequence shown in Fig.13, i.e.

(1) Before reflood the fuel temperature increases and reaches a given temperature, TEMP2. Then the injection of ECC water and the power decay are initiated at the same time.

(2) After a given time, TIME3, the supplied rate is changed from AZ1 to AZ2. During reflood, the power is gradually decreased following a specified decay heat curve.

(3) At a given time, TIME4, after quenching of the midplane of the fuel rod or at a given time, TIME5, after reflooding, or at the time when the temperature of midplane of the fuel rod exceeds a given temperature, TEMP5, the calculation is terminated.

3. Power distribution and decay heat curve

(1) The axial power distribution can be calculated in Function PX. PX is the normarized power at the node specified by argument J. The power distribution is presented in Fig.14 and is controlled by argument IAXMODE (it comes from the input data AXMODE).

(2) The decay heat curve can be generated by Function FQT. FQT is the normarized value at the time specified by argument TM.

Five types of decay heat curve have been implemented as follows :

1) 1.2 times the ANS standard with 1.1 times the Actinide decay heat.

$0.1 \leq TM < 10$ $\quad FQT = 0.07236 \cdot TM^{-0.0639} + 0.8 \cdot PACT\ (TM)$

$10 \leq TM < 150$ $\quad FQT = 0.09192 \cdot TM^{-0.181} + 0.8 \cdot PACT\ (TM)$

$150 \leq TM < 4 \times 10^{6}$ $\quad FQT = 0.156 \cdot TM^{-0.283} + 0.8 \cdot PACT\ (TM)$

$4 \times 10^{6} \leq TM$ $\quad FQT = 0.3192 \cdot TM^{-0.335} + 0.8 \cdot PACT\ (TM)$

where,

$$PACT(T) = 2.28 \times 10^{-3} \exp(-4.91 \times 10^{-4} \cdot T) + 2.17 \times 10^{-3} [7 \times 10^{-3} \{\exp(-3.41 \times 10^{-6} \cdot T) - \exp(-4.91 \times 10^{-4} \cdot T)\} + \exp(-3.41 \times 10^{-6} \cdot T)]$$

2) A Type curve of PWR-FLECHT (7 × 7 bundle)

$$FQT = 0.4200 \exp(-0.0283 \cdot TM) + 0.5800 - 3.920 \times 10^{-4} \cdot TM$$

3) B Type curve of PWR-FLECHT (10 × 10 bundle)

$$FQT = 0.4518 \exp(-0.0283 \cdot TM) + 0.5482 - 4.922 \times 10^{-4} \cdot TM$$

4) Constant power (Used in JAERI's experiment)

$$FQT = 1.0$$

5) D Type curve of PWR-FLECHT (10 × 10 bundle)

$$FQT = 0.3400 \exp(-0.01733 \cdot TM) + 0.6600 - 3.400 \times 10^{-4} \cdot TM$$

4. Calculation mode and ECCS water injection rate

The calculation mode must be chosen out of four modes listed below by specifing Z as input.

Z = 0.0 Constant feed rate

Z = 1.0 Functional forced feed

Z = 2.0 System calculation

Z = 3.0 Bypass of core calculation

1) For Z = 0.0, ULIN (Liquid velocity at core inlet) is determined by input AZ1, AZ2 and TIME3 as follows (see Fig.13) :

$0.0 \leq$ TIMERF $<$ TIME3 ULIN = AZ1

TIMERF $\geq$ TIME3 ULIN = AZ2

2) For Z = 1.0, ULIN is calculated by Function FULIN.
3) For Z = 2.0, ULIN is calculated in Subroutine SYSTEM. In the calculation in Subroutine SYSTEM, AMZR, which is the flow rate of supplied ECCS water to the downcomer, is used and is determined in Function AMZERŌ by using AZ1, AZ2 and TIME3 as in the cace of Z = 0.0.
4) For Z = 3.0, calculation of core behavior, which is done in Subroutine REFLA1, is bypassed. UGŌUT (Steam velocity at core outlet) is calculated in Function UGFUNC and is used in the calculation in Subroutine SYSTEM. ECCS water injection rate is determined by the same way in Z = 0.0 or Z = 2.0.

5. Elevation of thermocouples calculated in code

The elevations of thermocouples calculated in the code is determined in Subroutine ITELE depending on IAXMŌD as in Table 10. The maximum elevation number that can be calculated is 6.

6. Constans defined in code

(1) Physical properties of the fuel rod
Heat capacity of the fuel rod is defined in Function FCF depending on IAXMŌD. Specific heat of the material in the fuel rod is defined in Function SPEZ.

(2) Dimensions of the system to be calculated
Dimensions of the system, such as length, cross section, volume and so on, is defined in Function KEIJŌŌ depending on IAXMŌD.

(3) Physical properties
Some physical properties are defined in Subroutine PTABLE including pressure dependence.

(4) Other constants
Heat release ratio from the fuel rod due to quench, ASTŌRE, and

time constant of heat release from the fuel rod after quench, QTAW, are defined in Subroutine DPRINT.
Overflow level in downcomer, XMAX, is defined in Subroutine SYSTEM.
Stefan-Boltzmann constant, EMIS, and maximum liquid superheat, TQ, are defined in Subroutine REFLA1.

7. Stored output data

DATX (50, 301) is the data array for the stored output data and (DATX (J, NPRINT), J = 1, 50) are defined as Table 11. These data are listed at the last part of the printout as the time history data.

8. Printed output data

The printed output can be divided into the following four parts and some debug output.

1) The first one is the printout of input, physical properties and so forth. Namely
   (1) Input card list
   (2) Explanatory input list
   (3) Dimensions of facility
   (4) Constants and physical properties
   (5) Initial condition of fuel rod
2) The second one is the printout of the core state named "Inlet and outlet condition". This is the output from Subroutine REFLA1. Printed data and those descriptions are listed in Table 12.
3) The third one is the printout of the system state named "System flow and dynamics". This is the output from the main program. Printed data and those descriptions are listed in Table 13.
4) The last one is the printout of the time history and consists of 6 groups as follows :
   (1) Control data (Description in Table 14)
   (2) Temperature profile (Description in Table 15)
   (3) Quench data and carryover ratio (Description in Table 16)
   (4) Heat transfer coefficient (Description in Table 17)
   (5) Void fraction (Description in Table 18)
   (6) Movement of boundaries (Description in Table 19)

9. Plotted data

If NPLOT is positive, 8 figures are plotted.

1) Temperature profile of fuel surface
Temperature profiles of fuel rod surface are plotted in this figure. Interval of time to be plotted is the same that of core state data, i.e.

10.0 × TPRINT (sec)

Maximum number of the profile can be plotted is 9.

2) UL(1), DPTS, DPDWN
In this figure, liquid velocity at core inlet (UL(1)), differential pressure between upper and lower plenum (DPTS) and differential pressure between bottom of downcomer and containment (DPDWN) are plotted. UL(1) is sometimes scaled and/or shifted to be included in the range of graph.

3) Temperature history
Temperature histories at six elevations specified in Function ITELE are plotted.

4) Quench temperature
Quench temperature (TQN2) is plotted.

5) Heat transfer coefficient
Heat transfer coefficients at six elevations are plotted.

6) Void fraction history
Void fraction histories at six elevations are plotted.

7) Movement of boundaries
Position of 6 boundaries (L1, L2, L3, L4, L5 and L7) are plotted.

8) GLOUT, GOUT, Mass balance
Liquid mass flux and total mass flux at the core outlet are divided by the total mass flux at core inlet and plotted. The change rate of differential pressure in the core is also divided by the total mass flux at the core inlet and plotted to check the mass balance.

Table 8　Input data form

Column / Card No.	1 ∿ 12	13 ∿ 24	25 ∿ 36	37 ∿ 48	49 ∿ 60	61 ∿ 72
1	TITLE(1) ∿ TITLE(18) (18A4)					
2	QMAX0	DTS	AXMOD	TLIN	PIN	POUT
3	TIME3	AZ1	AZ2	DTC		Z
4	NPLOT					
5	N		DIA	PITCH	CLENG	69 IDECAY
6	WEC			TPRINT		
7				DF	CF	
8		CNHEAT	CSAVE			
9						
10		TEMP2				
11						
12	TIME4					
13	TIME5	TEMP5				
14 ∿ 21	TW(1) ∿ TW(91) (12F6.1)					

* Format of input

NPLOT, N : I 12

IDECAY : I 4

Others : G 12.5

Table 9 Description of input variables

Variable	Unit	Description
TITLE	—	Title for the calculation
QMAX0	kW/m	Linear peak power density
DTS	sec	Time step of core calculation
AXMOD	—	Index of experiment being calculated (*1)
TLIN	°C	Injected ECC water temperature (*2)
PIN	kg/cm²a	Initial lower plenum pressure
POUT	kg/cm²a	Initial upper plenum pressure
TIME3	sec	Turing time of ECC water supplied velocity (*3)
AZ1	cm/sec	1st supplied velocity of ECC water (*3)
AZ2	cm/sec	2nd supplied velocity of ECC water (*3)
DTC	sec	Time step of loop calculation (*4)
Z	—	Index of calculation mode (*5)
NPLOT	sec	Flag for plotting (*6)
N	—	Number of axial node of fuel rod
DIA	mm	Diameter of fuel rod
PITCH	mm	Pitch of rod array
CLENG	m	Length of fuel rod
IDECAY	—	Index of decay heat curve (*7)
WEC	—	Critical Weber number
TPRINT	sec	Interval of data storage (*8)
DF	kg/m³	Density of fuel rod (*9)
CF	kcal/kg·°C	Specific heat of fuel rod (*9)
CNHEAT	m	Length of non-heated part of fuel rod
CSAVE	m	Core saving (*9)
TEMP2	°C	Initiation temperature of reflood and power decay (*10)
TIME4	sec	Termination time of calculation after quench (*10)
TIME5	sec	Termination time of calculation after reflood (*10)
TEMP5	°C	Termination fuel rod temperature of calculation (*10)

note

*1

AXMOD	Description
1.0	Sine curve axial power profile
2.0	FLECHT
3.0	JAERI Series 5
4.0	JAERI Series 6 (Measured value)
5.0	JAERI Series 6 (Design value)
6.0	Flat axial power profile
7.0	CCTF Core I

*2

(1) If TLIN < 0, |TLIN| represents the subcooling and TLIN is reset as follows

$$TLIN = TS + TLIN$$

were, TS is the saturation temperature.

(2) If TLIN = 0, TLIN is set by Function FTLIN.

*3

See Fig.13

*4

DTC ≦ DTS

*5

See section 4.

*6

If NPLOT ≦ 0, no plotting.

*7

See section 3.

*8

The interval of printout of the data calculated in the core subroutine(REFLA1) is 10.0×TPRINT (sec).

*9

CSAVE is ignored unless AXMOD = 1.0.

DF and CF are ignored unless AXMOD = 1.0 or 6.0.

*10

See Fig.13

Table 10　Elevation of thermocouples calculated

Elevation No. / IAXMOD	1	2	3	4	5	6
1 or 2 or 6	0.6096	1.2192	1.8288	2.438	3.048	3.6
3	0.325	0.925	1.8	2.1	2.675	3.275
4 or 5	0.792	1.289	1.787	2.081	2.531	2.875
7	0.38	1.015	1.83	2.44	3.05	3.66

Table 11　Description of the stored output data

J	Description	Unit
1	Time after reflood	sec
2	Peak linear power density	kW/m
3	Reflooding flow velocity	cm/sec
4	System pressure	kg/cm^2a
5	Clad surface temperature at the 1/6 elevation of core	°C
⟩	⟩	⟩
10	6/6	°C
11	Total heat transfer coeff. at the 1/6 elevation of core	$kcal/m^2 \cdot h \cdot K$
⟩	⟩	⟩
16	6/6	$kcal/m^2 \cdot h \cdot K$
17	Void fraction at the 1/6 elevation of core	-
⟩	⟩	⟩
22	6/6	-
23	Gas phase temperature at the 1/6 elevation of core	°C
⟩	⟩	⟩
28	6/6	°C
29	Coolant subcooling at quench point	°C

Table 11 Description of the stored output data (continued)

J	Description	Unit
30	Quench velocity	cm/sec
31	Entrainment carryover ratio	-
32	Apparent water level	m
33	L1: bulk boiling point	m
34	L2: quench point	m
35	L3: start point of transition flow	m
36	L4: start point of dispersed flow	m
37	L5: start point of rewetted region	m
38	L7: start point of superheated steam flow (liquid top)	m
39	Differential pressure head of core	m Aq.
40	Fraction of radiation heat transfer to total heat transfer	-
41	Differential pressure head between lower and upper plenum	m Aq.
42	L6: start point of bulk boiling in rewetted region	m
43	Lower quench temperature	°C
44	Upper quench temperature	°C
45	Lower quench node	-
46	Upper quench node	-
47	Differential pressure head in downcomer	m Aq.
48	Differential pressure head across loop	m Aq.
49	Mass flux of gas at the outlet of core	kg/m·h
50	Mass flux of liquid at the outlet of core	kg/m·h

Table 12 Description of core state data

Data	Description	Unit
TQN2	Quench temperature of bottom quench point	°C
ZB2	Position of bottom quench point	m
TQN5	Quench temperature of top quench point	°C
ZB5	Position of top quench point	m
DD(IB4)	Droplet diameter at node IB4(*1)	mm
DD(N1)	Droplet diameter at outlet of core	mm
DP	Differential pressure head in core	m Aq.
CRATIO	Carryover fraction	—
P	Pressure at core inlet	kg/m^2
RL	Density of liquid	$kg \cdot h^2/m^4$
RGST	Density of gas at saturation temperature	$kg \cdot h^2/m^4$
I	Number of node	—
IP	Index of flow pattern at node I(*2)	—
AG(I)	Void fraction at node I	—
PC(I)	Pressure at node I	kg/m^2
HT(I)	Heat transfer coefficient at node I	$kcal/m^2 \cdot h \cdot °C$
HR(I)	Radiative heat flux at node I(*3)	$kcal/m^3 \cdot h$
HCV(I)	Convective heat flux at node I(*3)	$kcal/m^3 \cdot h$
UG(I)	Velocity of gas at node I	m/h
UL(I)	Velocity of liquid at node I	m/h
TW(I)	Clad surface temperature at node I	°C
TL/TG(I)	Fluid temperature at node I	°C
G(I)	Mass flux at node I	$kg \cdot h/m^3$

Note

*1 IB4 is the node just above the initiation point of dispersed flow.

*2 Indices of flow pattern are defined as follows:

Index	Flow Regime
1	Single liquid phase flow or Subcooled nucleate boiling
2	Saturated two phase flow
3	Subcooled film boiling
4	Transition flow
5	Dispersed flow
6	Single phase flow in rewetted region
7	Saturated two phase flow in rewetted region
8	Superheated steam flow

*3 This is multiplied heat flux by $(\frac{CL}{SO})$.

Where, CL : wetted perimeter (m)

SO : cross section of flow area (m^2)

Table 13 Description of system state data

Data	Description	Unit
USUP	Supplied ECC water flow rate(*1)	cm/sec
ULIN	Liquid velocity at core inlet(*1)	cm/sec
UDUP	Liquid top velocity in downcomer(*1,2)	cm/sec
UCUP	Liquid top velocity in core(*1,2)	cm/sec
UGOUT	Gas velocity at core outlet(*1)	cm/sec
ULOUT	Liquid velocity at core outlet(*1)	cm/sec
UGLOP	Gas velocity in loop(*1,2)	cm/sec
CRF	Carryover fraction	—
DPDN	Differential pressure between bottom of downcomer and containment(*2)	m Aq.(*3)
DPCR	Differential pressure between upper and lower plenum(*2)	m Aq.
DPLOP	Differential pressure between upper plenum and containment(*2)	m Aq.
AMCOIN	Summation of mass flux at core inlet(*4)	kg/m^2
AMCOR	Accumulated water in core calculated in REFLA1(*4)	kg/m^2
AMC2	Accumulated water in core calculated in SYSTEM(*4,2)	kg/m^2
AMGS	Summation of mass flux of gas at core outlet(*4)	kg/m^2
AMLS	Summation of mass flux of liquid at core outlet(*4)	kg/m^2

Note

*1

This value is converted into core water state value. Namely the mass flux is divided by core flow area and core water density.

*2

This value is meaningless unless Z = 2.0.

*3

1 m Aq. = 0.1 kg/cm^2

*4

This value is divided by core flow area.

Table 14 Description of time history data — (1)

Item	Description	Unit
MAXPOWER	Maximum linear power density	kW/m
FLOWRATE	Liquid velocity at core inlet	cm/sec
PRESSURE	Pressure at core inlet	kg/cm^2
DPCORE	Differential pressure between upper and lower plenum	m Aq.
DPDOWN	Differential pressure between bottom of downcomer and containment	m Aq.
DPLOOP	Differential pressure between upper plenum and containment	m Aq.
WGOUT	Mass flux of gas at core outlet	$kg/m^2 \cdot h$

Table 15 Description of time history data — (2)

Item	Description	Unit
TW1	Clad surface temperature at elevation 1	°C
TW2	Clad surface temperature at elevation 2	°C
TW3	Clad surface temperature at elevation 3	°C
TW4	Clad surface temperature at elevation 4	°C
TW5	Clad surface temperature at elevation 5	°C
TW6	Clad surface temperature at elevation 6	°C
HT3	Heat transfer coefficient at elevation 3	$kcal/m^2 \cdot h \cdot °C$

Table 16 Description of time history data — (3)

Item	Description	Unit
LC.SUBCL	Subcooling of liquid at node just above quench point	°C
QUENCHVL	Quench velocity	cm/sec
QUENCHPT	Position of quench point	m
CARRYOVR	Carryover fraction	—
QUENCHTP	Quench temperature	°C
TW3	Clad surface temperature at elevation 3	°C
HT3	Heat transfer coefficient at elevation 3	$kcal/m^2 \cdot h \cdot °C$

Table 17　Description of time history data — (4)

Item	Description	Unit
HT1	Heat transfer coefficient at elevation 1	kcal/m²·h·°C
HT2	Heat transfer coefficient at elevation 2	kcal/m²·h·°C
HT3	Heat transfer coefficient at elevation 3	kcal/m²·h·°C
HT4	Heat transfer coefficient at elevation 4	kcal/m²·h·°C
HT5	Heat transfer coefficient at elevation 5	kcal/m²·h·°C
HT6	Heat transfer coefficient at elevation 6	kcal/m²·h·°C
VŌID3	Void fraction at elevation 3	—

Table 18　Description of time history data — (5)

Item	Description	Unit
VŌID1	Void fraction at elevation 1	—
VŌID2	Void fraction at elevation 2	—
VŌID3	Void fraction at elevation 3	—
VŌID4	Void fraction at elevation 4	—
VŌID5	Void fraction at elevation 5	—
VŌID6	Void fraction at elevation 6	—
MAXPŌWER	Maximum linear power density	kW/m

Table 19　Description of time history data — (6)

Item	Description	Unit
LIQ.BŌIL	Position of L1	m
QUENCHPT	Position of L2	m
SATURATE	Position of L3	m
TRA-DISP	Position of L4	m
REWETTED	Position of L5	m
LIQ.LEV	Position of L7	m
PRESHEAD	Differential pressure head in core	m Aq.

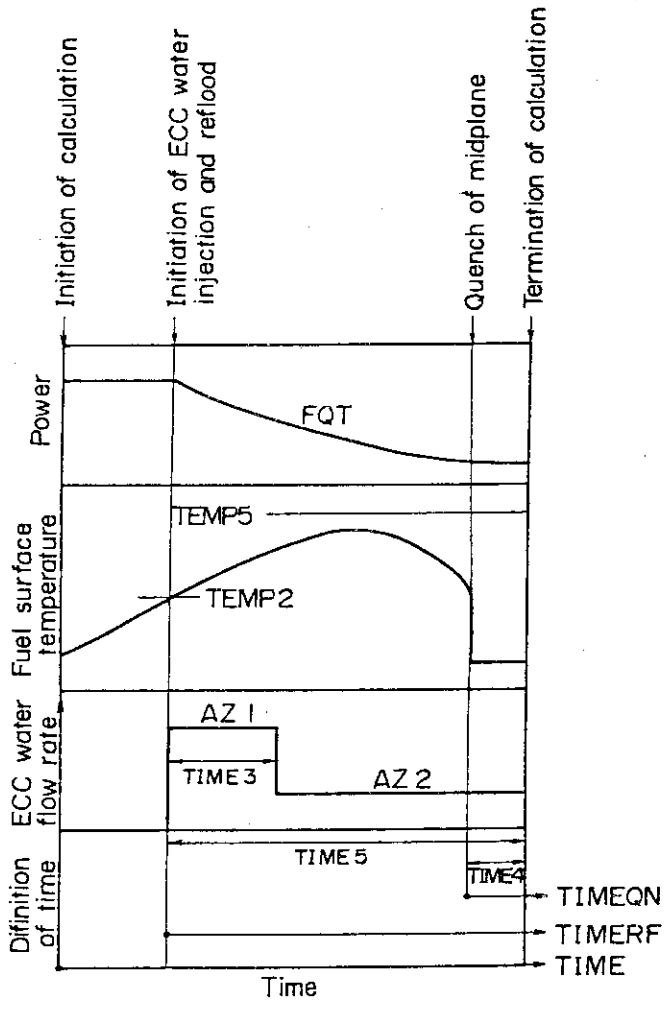


Fig. 13 Schematic diagram of calculation control

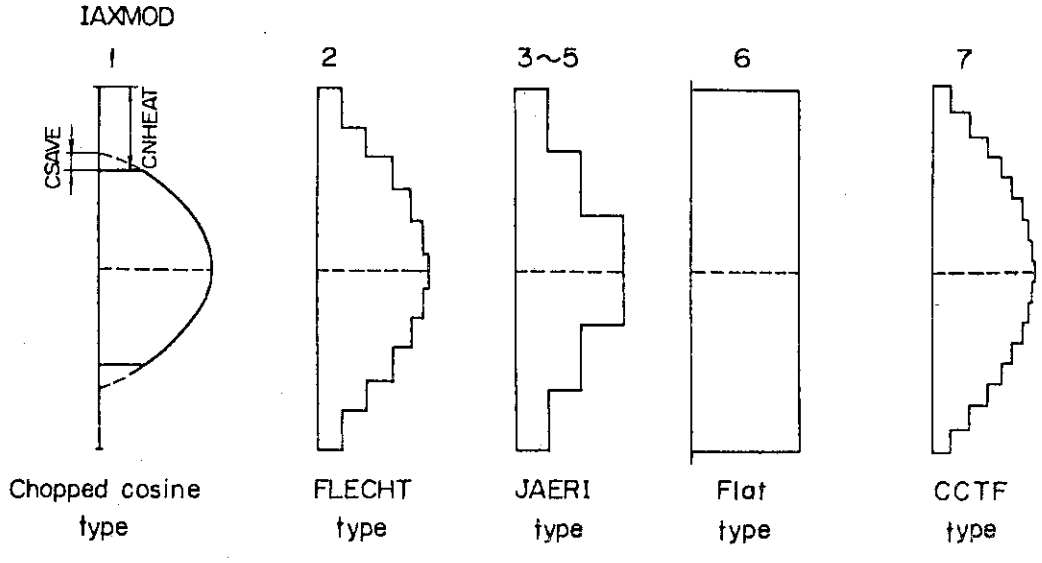


Fig. 14 Axial power distribution

V. Sample of Calculation

A sample calculation with REFLA-1D is presented in this chapter. The experiment referred for the sample calculation is Run 6033 of JAERI's Series 6 Experiment.

In the following sections, the initial conditions of the referred experiment, the input for REFLA-1D and the printed and plotted output of REFLA-1D are indicated.

1. Initial conditions of Run 6033

Initial conditions of the experiment Run 6033 are listed in Table 20.

2. Input data for Run 6033

Input data for Run 6033 are presented in Table 21.

3. Printed and plotted output for Run 6033

Printed and plotted output are attached in the following appendix.

Table 20 Initial conditions of Run 6033

Maximum linear power density	2.1	kW/m
System pressure	2.0	kg/cm^2a
Inlet water temperature	100	°C
Inlet water velocity	4.0	cm/sec
Initial rod surface temperature	400	°C

Table 21 Input data for Run 6033

Line No.												
1	TEST CALCULATION OF RUN 6033 (S6033)											
2	2.100	0.10	4.0	100.	2.000	2.000						
3	100.0	4.000	4.00			0.0						
4	1											
5	90		10.5	13.8	3.6	4						
6	1.0			5.00								
7												
8												
9												
10		400.0										
11												
12	450.0											
13	450.0	1200.0										
14	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0
15	181.0	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5
16	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	400.0
17	400.0	400.0	400.0	400.0	400.0	400.0	400.0	400.0	400.0	400.0	400.0	400.0
18	400.0	400.0	400.0	400.0	400.0	400.0	400.0	320.0	320.0	320.0	320.0	320.0
19	320.0	320.0	320.0	320.0	320.0	320.0	320.0	247.0	247.0	247.0	247.0	247.0
20	247.0	247.0	247.0	247.0	247.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0
21	184.0	184.0	184.0	184.0	184.0	184.0	184.0					

Acknowlegment

The authors are indebted to Messrs T. Iguchi and T. Sudoh and Dr. Y. Sudo of the Japan Atomic Energy Research Institute (JAERI) for contribution to modeling and testing this code.

The authors are also grateful to Dr. M. Nozawa and Dr. K. Hirano of JAERI for helpful suggestions.

[Nomenclature]

A_{st} : Instantaneous release ratio of separated energy during quenching

C_D : Drag coefficient

C, C_p : Specific heat (kcal/kg°C)

D_d : Droplet diameter (m)

D_e : Equivalent diameter (m)

E : Emissivity

F : Friction Coefficient (See Table 1)

F_s : Shape factor of radiation heat transfer

G : Mass velocity (kgh/m^3)

g : Acceleration of gravity (m/h^2)

H : Enthalpy (kcal/kg)

H_{fg} : Latent heat of evaporation (kcal/kg)

h : Heat transfer coefficient ($kcal/m^2h°C$)

L : Wetting perimeter (m)

L1∿L7 : Boundary levels defined in Fig.2 (m)

L_Q : Distance from quench front

$\dot{m}$: Mass transferred from liquid phase to vapor phase in unit volume of two-phase mixture (kgh/m^4)

Nu : Nusselt number

n : Number flux of droplets ($1/m^2h$)

Pr : Prandtl number

P : Pressure (kg/m^2)

Q : Heat input per unit volume ($kcal/m^3h$) (See Table 1)

Re : Reynolds number

S : Cross section of flow channel (m^2)

T	:	Temperature (°C)
T_o	:	Maximum liquid superheat defined in Eq.(35) (°C)
T_Q	:	Apparent quench temperature (°C)
T_R	:	Rewetting temperature (°C)
t	:	Time (h)
U	:	Velocity (m/h)
V	:	Viscous force per unit volume (kg/m^3) (See Table 1)
We	:	Weber number defined by Eq.(2.36)
We_c	:	Critical Weber number
X	:	Quality
Z	:	Elevation (m)
α	:	Void fraction
ΔT_{sat}	:	Liquid superheat (°C)
ΔT_{sub}	:	Liquid subcooling (°C)
ΔU	:	Slip velocity (m/h)
ε	:	Stefan Boltzmann constant ($kcal/m^2h°C^4$)
λ	:	Thermal conductivity (kcal/mh°C)
τ	:	Time constant of delayed release of stored energy after quenching
μ	:	Dynamic viscosity (kgh/m^2)
ν	:	Kinetic viscosity (m^2/h)
ρ	:	Density (kgh^2/m^4)
σ	:	Surface tension (kg/m)
ϕ	:	Heat flux ($kcal/m^2h$)

(Subscripts)

B	:	Boiling
C	:	Cladding, Critical (in We_c, L_c)
d	:	Droplet
f	:	Fluid (gas or liquid phase)
F	:	Fuel
g	:	Gas phase
ℓ	:	Liquid phase
M	:	Maximum
MEAN	:	Mean
Q	:	Quench
R	:	Radiation
sat	:	Saturated
sub	:	Subcooled
w	:	Wall (clad surface)
VD	:	Vapor to droplets
WD	:	Wall to droplet
WV	:	Wall to vapor

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Appendix

The printed and plotted output of the calculation for Run 6033 is attached in the following.

```
                              * * * *  INPUT  CARDS  LIST  * * * *

NO.       .....1.....2.....3.....4.....5.....6.....7.....8.....9....10....11....12....13..

  1      (TEST CALCULATION OF RUN 6033  (S6033X)                                          )
  2      (       2.100        0.10          4.0         100.         2.000        2.000  )
  3      (       100.0       4.000         4.00                                    0.0    )
  4      (           1                                                                    )
  5      (          90                      10.5         13.8          3.6           4    )

  6      (         1.0                                   5.00                             )
  7      (                                                                              )
  8      (                                                                              )
  9      (                                                                              )
 10      (                    400.0                                                     )

 11      (                                                                              )
 12      (       450.0                                                                  )
 13      (       450.0       1200.0                                                     )
 14      ( 181.0 181.0 181.0 181.0 181.0 181.0 181.0 181.0 181.0 181.0 181.0 181.0      )
 15      ( 181.0 250.5 250.5 250.5 250.5 250.5 250.5 250.5 250.5 250.5 250.5 250.5      )

 16      ( 318.0 318.0 318.0 318.0 318.0 318.0 318.0 318.0 318.0 318.0 318.0 400.0      )
 17      ( 400.0 400.0 400.0 400.0 400.0 400.0 400.0 400.0 400.0 400.0 400.0 400.0      )
 18      ( 400.0 400.0 400.0 400.0 400.0 400.0 400.0 320.0 320.0 320.0 320.0 320.0      )
 19      ( 320.0 320.0 320.0 320.0 320.0 320.0 320.0 247.0 247.0 247.0 247.0 247.0      )
 20      ( 247.0 247.0 247.0 247.0 247.0 184.0 184.0 184.0 184.0 184.0 184.0 184.0      )

NO.       .....1.....2.....3.....4.....5.....6.....7.....8.....9....10....11....12....13..

 21      ( 184.0 184.0 184.0 184.0 184.0 184.0 184.0                                     )
```

TEST CALCULATION OF RUN 6033 (S6033X)

```
QMAXO =    2.100      DTS   =   0.1000      AXMOD =    4.000
TLIN  =    100.0      PIN   =    2.000      POUT  =    2.000
TIME3 =    100.0      AZ1   =    4.000      AZ2   =    4.000
DTC   =    0.0        AK3   =    0.0        Z     =    0.0

NPLOT  =           1
NRSTRT =           0
DTRST  = 0.0
CPENO  = 0.0

N      =          90
IFBMOD =           0
DIA    =  10.500
PITCH  =  13.800
CLENG  =  3.6000

RUN1 =       RUN2 =       RUN3 =       IRUN =           0

WEC    =  1.0000
WEC1   = 0.0
YYY    = 0.0
IPRINT =  5.0000
VOL    = 0.0
SW3    = 0.0

N5     =           0
RC     = 0.0
CKF    = 0.0
DF     = 0.0
CF     = 0.0

IAXMOD =           4  ( JAERI TYPE AXIAL POWER PROFILE (SERIES-6) )

IDECAY =           4  ( CONSTANT DECAY POWER JEARI TYPE )

CNHEAT = 0.0
CSAVE  = 0.0

TIME1= 0.0          TEMP1= 0.0          QMAX1= 0.0          ULIN1= 0.0          PSYS1= 0.0          TLIN1= 0.0
TIME2= 0.0          TEMP2=  400.00      QMAX2= 0.0          ULIN2= 0.0          PSYS2= 0.0          TLIN2= 0.0
XXXX3= 0.0          TEMP3= 0.0          QMAX3= 0.0          ULIN3= 0.0          PSYS3= 0.0          TLIN3= 0.0
TIME4=  450.00      TEMP4= 0.0          QMAX4= 0.0          ULIN3= 0.0          PSYS4= 0.0          TLIN4= 0.0
TIME5=  450.00      TEMP5=  1200.0      QMAX5= 0.0          ULIN5= 0.0          PSYS5= 0.0          TLIN5= 0.0
```

INITIAL CONDITION FOR AXIAL TEMPERATURE DISTRIBUTION (DEGC)

```
 181.000   181.000   181.000   181.000   181.000   181.000   181.000   181.000   181.000   181.000
 181.000   181.000   181.000   250.500   250.500   250.500   250.500   250.500   250.500   250.500
 250.500   250.500   250.500   250.500   318.000   318.000   318.000   318.000   318.000   318.000
 318.000   318.000   318.000   318.000   318.000   400.000   400.000   400.000   400.000   400.000
 400.000   400.000   400.000   400.000   400.000   400.000   400.000   400.000   400.000   400.000
 320.000   320.000   320.000   320.000   320.000   320.000   320.000   320.000   320.000   320.000
 247.000   247.000   247.000   247.000   247.000   247.000   247.000   247.000   247.000   247.000
 184.000   184.000   184.000   184.000   184.000   184.000   184.000   184.000   184.000   184.000


 184.000
```

SYSTEM PARAMETERS

CORE FLOW AREA	0.0022150	(M**2)
DOWNCOMER FLOW AREA	0.0023670	(M**2)
FLOW AREA OF CO-DO CONNECTED	0.0006160	(M**2)
LOOP FLOW AREA	0.0023670	(M**2)
UPPER PLENUM VOLUM	0.0480000	(M**3)
CORE HEATED LENGTH	3.600	(M)
DOWNCOMER LENGTH	4.800	(M)
LENGTH OF CO-DO CONNECTED	3.520	(M)
INLET RESISTANCE COEFFCIENT	30.000	(-)
IN-CORE RESISTANCE COE.	20.000	(-)
IN-DOWNCOMER RESISTANCE COE.	10.000	(-)
LOOP RESISTANCE COEFFICIENT.	250.000	(-)

FLOW CHANNEL GEOMETRY

PIN DIA	10.5000	MM
PITCH	13.8000	MM
CROSS SECTION	1.38395	CM**2
WETTED PERIMETER	32.9867	MM
EQUIVALENT DIA	12.5929	MM
CORE LENGTH	3600.00	MM
AXIAL INCREMENT	40.0000	MM

CONSTANTS + PHYSICAL PROPERTIES

PAI	3.14159	-
GRAVITATIONAL AC	0.127100D+09	M/H**2
STEFAN BOLTZ.CON	0.488000D-07	KC/M2K4H
SATURATION TEMP.	119.620	DEG.C
DENSITY OF WATER	0.742247D-05	KG*H2/M4
DENSITY OF VAPOR	0.872457D-08	KG*H2/M4
LATENT HEAT	526.100	KCAL/KG
VISCOSITY OF WAT	0.894386D-03	KG*H/M2
VISCOSITY OF VAP	0.429397D-01	KG*H/M2
PRANDTL NO. WAT	1.44608	-
PRANDTL NO. VAP	1.10962	-
HEAT CONDUCT WAT	0.588943	KCAL/MHC
HEAT CONDUCT VAP	0.222696D-01	KCAL/MHC
SPECIFIC HT WAT	1.00000	KCAL/KG
SPECIFIC HT VAP	0.500000	KCAL/KG
SURFACE TENS WAT	0.555855D-02	KG/M

CASE NUMBER = 1
INITIAL CONDITION

DISTANCE (MM)	NM.POWER (-)	INIT.TW (DC)	INIT.TG (DC)
0.0	0.250000	181.000	181.000
40.0000	0.250000	181.000	181.000
80.0000	0.250000	181.000	181.000
120.000	0.250000	181.000	181.000
160.000	0.250000	181.000	181.000
200.000	0.250000	181.000	181.000
240.000	0.250000	181.000	181.000
280.000	0.250000	181.000	181.000
320.000	0.250000	181.000	181.000
360.000	0.250000	181.000	181.000
400.000	0.250000	181.000	181.000
440.000	0.250000	181.000	181.000
480.000	0.250000	181.000	181.000
520.000	0.488000	250.500	250.500
560.000	0.488000	250.500	250.500
600.000	0.488000	250.500	250.500
640.000	0.488000	250.500	250.500
680.000	0.488000	250.500	250.500
720.000	0.488000	250.500	250.500
760.000	0.488000	250.500	250.500
800.000	0.488000	250.500	250.500
840.000	0.488000	250.500	250.500
880.000	0.488000	250.500	250.500
920.000	0.488000	250.500	250.500
960.000	0.714000	318.000	318.000
1000.00	0.714000	318.000	318.000
1040.00	0.714000	318.000	318.000
1080.00	0.714000	318.000	318.000
1120.00	0.714000	318.000	318.000
1160.00	0.714000	318.000	318.000
1200.00	0.714000	318.000	318.000
1240.00	0.714000	318.000	318.000
1280.00	0.714000	318.000	318.000
1320.00	0.714000	318.000	318.000
1360.00	0.714000	318.000	318.000
1400.00	1.00000	400.000	400.000
1440.00	1.00000	400.000	400.000
1480.00	1.00000	400.000	400.000
1520.00	1.00000	400.000	400.000
1560.00	1.00000	400.000	400.000
1600.00	1.00000	400.000	400.000
1640.00	1.00000	400.000	400.000
1680.00	1.00000	400.000	400.000
1720.00	1.00000	400.000	400.000
1760.00	1.00000	400.000	400.000
1800.00	1.00000	400.000	400.000
1840.00	1.00000	400.000	400.000
1880.00	1.00000	400.000	400.000
1920.00	1.00000	400.000	400.000
1960.00	1.00000	400.000	400.000

(CONTINUED)

INITIAL CONDITION

DISTANCE (MM)	NM.POWER (-)	INIT.TW (DC)	INIT.TG (DC)
2000.00	1.00000	400.000	400.000
2040.00	1.00000	400.000	400.000
2080.00	1.00000	400.000	400.000
2120.00	1.00000	400.000	400.000
2160.00	1.00000	400.000	400.000
2200.00	0.738000	320.000	320.000
2240.00	0.738000	320.000	320.000
2280.00	0.738000	320.000	320.000
2320.00	0.738000	320.000	320.000
2360.00	0.738000	320.000	320.000
2400.00	0.738000	320.000	320.000
2440.00	0.738000	320.000	320.000
2480.00	0.738000	320.000	320.000
2520.00	0.738000	320.000	320.000
2560.00	0.738000	320.000	320.000
2600.00	0.738000	320.000	320.000
2640.00	0.738000	320.000	320.000
2680.00	0.476000	247.000	247.000
2720.00	0.476000	247.000	247.000
2760.00	0.476000	247.000	247.000
2800.00	0.476000	247.000	247.000
2840.00	0.476000	247.000	247.000
2880.00	0.476000	247.000	247.000
2920.00	0.476000	247.000	247.000
2960.00	0.476000	247.000	247.000
3000.00	0.476000	247.000	247.000
3040.00	0.476000	247.000	247.000
3080.00	0.262000	184.000	184.000
3120.00	0.262000	184.000	184.000
3160.00	0.262000	184.000	184.000
3200.00	0.262000	184.000	184.000
3240.00	0.262000	184.000	184.000
3280.00	0.262000	184.000	184.000
3320.00	0.262000	184.000	184.000
3360.00	0.262000	184.000	184.000
3400.00	0.262000	184.000	184.000
3440.00	0.262000	184.000	184.000
3480.00	0.262000	184.000	184.000
3520.00	0.262000	184.000	184.000
3560.00	0.262000	184.000	184.000
3600.00	0.262000	184.000	184.000

*** ICO= 1 TIMERF= 0.0 ***

```
                    *** LOPASS ***          DT = 0.10000D+00    TAW = 0.10000D+01
TIMES 0.0           NPROS,IBI-7   0   2   2   2  92  92  92  92 ID = 1 DI-7 0.0360 0.0360 0.0360 0.0     0.0      0.0      0.0   ULIN= 4.0000D+00
TIMES 0.0           NPROS,IBI-7   1   2   2   2   2  92  92   2 ID = 1 DI-7 0.0360 0.0360 0.0360 0.0360 0.0     0.0      0.0360ULIN= 4.0000D+00
TIMES 0.0           NPROS,IBI-7   8   2   2   2   2  92  92   2 ID =91 DI-7 0.0360 0.0360 0.0360 0.0360 0.0     0.0      0.0360ULIN= 4.0000D+00
                                       ***    SPHT    INFORMATION    ***
       G(I),I=1,91
   1.06884D-03  1.25634D-06 -4.41611D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41220D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07
       GG(I),I=1,91
   0.0          1.25634D-06 -4.41611D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07 -4.41320D-07
  -4.41320D-07
       GL(I),I=1,91
   1.06884D-03  0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0
   0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0
   0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0
   0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0
   0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0
   0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0
   0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0
   0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0
   0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0          0.0
   0.0
```

*** TIME = 0.0 (SEC) **** INLET AND OUTLET CONDITION ****

TQN2(C)	ZB2(M)	TQN5(C)	ZB5(M)	DD(IB4)(MM)	DD(N1)(MM)	OP(M)	CRATIO
181.16	0.400000D-02	0.0	3.6400	0.0	0.0	0.60945D-02	0.0

P, RL, RGST 2.00000+04 7.4225D-06 8.7246D-09

I	IP	AG(I)	PC(I)	HT(I)	HR(I)	HCV(I)	UG(I)	UL(I)	TW(I)	TL/TG(I)	G(I)
1	1	0.0	2.000D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	100.0	1.069D-03
2	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	144.0	0.0	181.2	119.6	1.256D-06
3	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.53	0.0	181.2	181.0	-4.416D-07
4	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.49	0.0	181.2	181.0	-4.413D-07
5	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.49	0.0	181.2	181.0	-4.413D-07
6	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.49	0.0	181.2	181.0	-4.413D-07
7	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.49	0.0	181.2	181.0	-4.413D-07
8	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.49	0.0	181.2	181.0	-4.413D-07
9	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.49	0.0	181.2	181.0	-4.413D-07
10	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.49	0.0	181.2	181.0	-4.413D-07
11	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.49	0.0	181.2	181.0	-4.413D-07
12	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.49	0.0	181.2	181.0	-4.413D-07
13	8	1.0000	2.000D+04	1.715D-02	0.0	251.6	-58.49	0.0	181.2	181.0	-4.413D-07
14	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
15	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
16	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
17	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
18	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
19	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
20	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
21	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
22	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
23	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
24	8	1.0000	2.000D+04	1.525D-02	0.0	476.9	-67.44	0.0	250.8	250.5	-4.413D-07
25	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
26	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
27	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
28	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
29	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
30	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
31	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
32	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
33	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
34	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
35	8	1.0000	2.000D+04	1.424D-02	0.0	674.8	-76.13	0.0	318.4	318.0	-4.413D-07
36	8	1.0000	2.000D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
37	8	1.0000	2.000D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
38	8	1.0000	2.000D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
39	8	1.0000	2.000D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
40	8	1.0000	2.000D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
41	8	1.0000	2.000D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
42	8	1.0000	2.000D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
43	8	1.0000	2.000D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
44	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
45	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
46	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
47	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
48	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
49	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
50	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07

51	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
52	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
53	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
54	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
55	8	1.0000	1.999D+04	1.349D-02	0.0	903.2	-86.69	0.0	400.6	400.0	-4.413D-07
56	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
57	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
58	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
59	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
60	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
61	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
62	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
63	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
64	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
65	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
66	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
67	8	1.0000	1.999D+04	1.456D-02	0.0	696.8	-76.39	0.0	320.5	320.0	-4.413D-07
68	8	1.0000	1.999D+04	1.531D-02	0.0	465.9	-66.99	0.0	247.3	247.0	-4.413D-07
69	8	1.0000	1.999D+04	1.531D-02	0.0	465.9	-66.99	0.0	247.3	247.0	-4.413D-07
70	8	1.0000	1.999D+04	1.531D-02	0.0	465.9	-66.99	0.0	247.3	247.0	-4.413D-07
71	8	1.0000	1.999D+04	1.531D-02	0.0	465.9	-66.99	0.0	247.3	247.0	-4.413D-07
72	8	1.0000	1.999D+04	1.531D-02	0.0	465.9	-66.99	0.0	247.3	247.0	-4.413D-07
73	8	1.0000	1.999D+04	1.531D-02	0.0	465.9	-66.99	0.0	247.3	247.0	-4.413D-07
74	8	1.0000	1.999D+04	1.531D-02	0.0	465.9	-66.99	0.0	247.3	247.0	-4.413D-07
75	8	1.0000	1.999D+04	1.531D-02	0.0	465.9	-66.99	0.0	247.3	247.0	-4.413D-07
76	8	1.0000	1.999D+04	1.531D-02	0.0	465.9	-66.99	0.0	247.3	247.0	-4.413D-07
77	8	1.0000	1.999D+04	1.531D-02	0.0	465.9	-66.99	0.0	247.3	247.0	-4.413D-07
78	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
79	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
80	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
81	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
82	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
83	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
84	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
85	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
86	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
87	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
88	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
89	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
90	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07
91	8	1.0000	1.999D+04	1.712D-02	0.0	263.4	-58.87	0.0	184.2	184.0	-4.413D-07

NAME(1)= 0

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)	---->	<---	(KG/M**2) AT CORE FLOW			--->
0.50	4.000	4.000	2.066	1.934	-0.003	0.0	0.0	0.0	0.0	0.0	0.0	18.9	25.5	0.0	-0.0	0.0
1.00	4.000	4.000	2.066	1.934	0.005	0.0	0.0	0.0	0.0	0.0	0.0	37.7	44.4	0.0	0.0	0.0
1.50	4.000	4.000	2.066	1.934	0.007	0.0	0.0	0.0	0.0	0.0	0.0	56.6	63.2	0.0	0.1	0.0
2.00	4.000	4.000	2.066	1.934	0.003	0.0	0.0	0.0	0.0	0.0	0.0	75.5	82.0	0.0	0.1	0.0
2.50	4.000	4.000	2.066	1.934	0.006	0.0	0.0	0.0	0.0	0.0	0.0	94.3	100.9	0.0	0.1	0.0
3.00	4.000	4.000	2.066	1.934	0.003	0.0	0.0	0.0	0.0	0.0	0.0	113.2	119.7	0.0	0.2	0.0
3.50	4.000	4.000	2.066	1.934	0.006	0.0	0.0	0.0	0.0	0.0	0.0	132.1	138.6	0.0	0.2	0.0
4.00	4.000	4.000	2.066	1.934	0.003	0.0	0.0	0.0	0.0	0.0	0.0	150.9	157.4	0.0	0.2	0.0
4.50	4.000	4.000	2.066	1.934	0.006	0.0	0.0	0.0	0.0	0.0	0.0	169.8	176.2	0.0	0.2	0.0
5.00	4.000	4.000	2.066	1.934	0.002	0.0	0.0	0.0	0.0	0.0	0.0	188.7	195.1	0.0	0.3	0.0
5.50	4.000	4.000	2.066	1.934	0.006	0.0	0.0	0.0	0.0	0.0	0.0	207.5	213.9	0.0	0.3	0.0
6.00	4.000	4.000	2.066	1.934	0.002	0.0	0.0	0.0	0.0	0.0	0.0	226.4	232.8	0.0	0.3	0.0
6.50	4.000	4.000	2.066	1.934	0.006	0.0	0.0	0.0	0.0	0.0	0.0	245.3	251.6	0.0	0.3	0.0
7.00	4.000	4.000	2.066	1.934	0.002	0.0	0.0	0.0	0.0	0.0	0.0	264.2	270.5	0.0	0.4	0.0
7.50	4.000	4.000	2.066	1.934	0.006	0.0	0.0	0.0	0.0	0.0	0.0	283.0	289.3	0.0	0.4	0.0
8.00	4.000	4.000	2.066	1.934	0.002	0.0	0.0	0.0	0.0	0.0	0.0	301.9	308.1	0.0	0.4	0.0
8.50	4.000	4.000	2.066	1.934	0.006	0.0	0.0	0.0	0.0	0.0	0.0	320.8	327.0	0.0	0.5	0.0
9.00	4.000	4.000	2.066	1.934	0.002	0.0	0.0	0.0	0.0	0.0	0.0	339.6	345.8	0.0	0.5	0.0
9.50	4.000	4.000	2.066	1.934	0.006	0.0	0.0	0.0	0.0	0.0	0.0	358.5	364.7	0.0	0.5	0.0
10.00	4.000	4.000	2.066	1.934	0.003	0.0	0.0	0.0	0.0	0.0	0.0	377.4	383.5	0.0	0.5	0.0
10.50	4.000	4.000	2.066	1.934	0.008	0.0	0.0	0.0	0.0	0.0	0.0	396.2	402.3	0.0	0.6	0.0
11.00	4.000	4.000	2.066	1.934	0.004	0.0	0.0	0.0	0.0	0.0	0.0	415.1	421.1	0.0	0.6	0.0
11.50	4.000	4.000	2.066	1.934	0.015	0.0	0.0	0.0	0.0	0.0	0.0	434.0	439.9	0.0	0.7	0.0
12.00	4.000	4.000	2.066	1.934	0.017	0.0	0.0	0.0	0.0	0.0	0.0	452.8	458.7	0.0	0.8	0.0
12.50	4.000	4.000	2.066	1.934	0.082	0.0	0.0	0.0	0.0	0.0	0.0	471.7	477.3	0.0	1.0	0.0
13.00	4.000	4.000	2.066	1.934	0.030	0.0	0.0	0.0	0.0	0.0	0.0	490.6	495.9	0.0	1.4	0.0
13.50	4.000	4.000	2.066	1.934	0.087	0.0	0.0	0.0	0.0	0.0	0.0	509.4	514.4	0.0	1.7	0.0
14.00	4.000	4.000	2.066	1.934	0.041	0.0	0.0	0.0	0.0	0.0	0.0	528.3	532.8	0.0	2.1	0.0
14.50	4.000	4.000	2.066	1.934	0.100	0.0	0.0	0.0	0.0	0.0	0.0	547.2	551.3	0.0	2.5	0.0
15.00	4.000	4.000	2.066	1.934	0.056	0.0	0.0	0.0	0.0	0.0	0.0	566.0	569.6	0.0	3.1	0.0
15.50	4.000	4.000	2.066	1.934	0.125	0.0	0.0	0.0	0.0	0.0	0.0	584.9	588.0	0.0	3.5	0.0
16.00	4.000	4.000	2.066	1.934	0.070	0.0	0.0	0.0	0.0	0.0	0.0	603.8	606.3	0.0	4.1	0.0
16.50	4.000	4.000	2.066	1.934	0.161	0.0	0.0	0.0	0.0	0.0	0.0	622.6	624.6	0.0	4.7	0.0
17.00	4.000	4.000	2.066	1.934	0.096	0.0	0.0	0.0	0.0	0.0	0.0	641.5	642.8	0.0	5.4	0.0
17.50	4.000	4.000	2.066	1.934	0.169	0.0	0.0	0.0	0.0	0.0	0.0	660.4	661.0	0.0	6.0	0.0
18.00	4.000	4.000	2.066	1.934	0.127	0.0	0.0	0.0	0.0	0.0	0.0	679.2	679.3	0.0	6.6	0.0
18.50	4.000	4.000	2.066	1.934	0.302	0.0	0.0	0.0	0.0	0.0	0.0	698.1	697.2	0.0	7.6	0.0
19.00	4.000	4.000	2.066	1.934	0.166	0.0	0.0	0.0	0.0	0.0	0.0	717.0	715.5	0.0	8.2	0.0
19.50	4.000	4.000	2.066	1.934	0.081	0.0	0.0	0.0	0.0	0.0	0.0	735.8	733.4	0.0	9.1	0.0
20.00	4.000	4.000	2.066	1.934	0.213	0.0	0.0	0.0	0.0	0.0	0.0	754.7	751.6	0.0	9.8	0.0
20.50	4.000	4.000	2.066	1.934	0.170	0.0	0.0	0.0	0.0	0.0	0.0	773.6	769.5	0.0	10.7	0.0
21.00	4.000	4.000	2.066	1.934	0.311	0.0	0.0	0.0	0.0	0.0	0.0	792.5	787.3	0.0	11.8	0.0
21.50	4.000	4.000	2.066	1.934	0.239	0.0	0.0	0.0	0.0	0.0	0.0	811.3	805.4	0.0	12.6	0.0
22.00	4.000	4.000	2.066	1.934	0.138	0.0	0.0	0.0	0.0	0.0	0.0	830.2	823.1	0.0	13.7	0.0
22.50	4.000	4.000	2.066	1.934	0.369	0.0	0.0	0.0	0.0	0.0	0.0	849.1	840.5	0.0	15.2	0.0
23.00	4.000	4.000	2.066	1.934	0.151	0.0	0.0	0.0	0.0	0.0	0.0	867.9	858.5	0.0	16.1	0.0
23.50	4.000	4.000	2.066	1.934	0.269	0.0	0.0	0.0	0.0	0.0	0.0	886.8	876.5	0.0	16.9	0.0
24.00	4.000	4.000	2.066	1.934	0.250	0.0	0.0	0.0	0.0	0.0	0.0	905.7	894.2	0.0	18.1	0.0
24.50	4.000	4.000	2.066	1.934	0.263	0.0	0.0	0.0	0.0	0.0	0.0	924.5	911.9	0.0	19.3	0.0
25.00	4.000	4.000	2.066	1.934	0.282	0.0	0.0	0.0	0.0	0.0	0.0	943.4	929.5	0.0	20.6	0.0

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)	---->	<---	(KG/M**2) AT CORE FLOW			--->
25.50	4.000	4.000	2.066	1.934	0.302	0.0	0.0	0.0	0.0	0.0	0.0	962.3	946.9	0.0	22.0	0.0
26.00	4.000	4.000	2.066	1.934	0.321	0.0	0.0	0.0	0.0	0.0	0.0	981.1	964.3	0.0	23.5	0.0
26.50	4.000	4.000	2.066	1.934	0.342	0.0	0.0	0.0	0.0	0.0	0.0	1000.0	981.6	0.0	25.0	0.0
27.00	4.000	4.000	2.066	1.934	0.360	0.0	0.0	0.0	0.0	0.0	0.0	1018.9	998.8	0.0	26.7	0.0
27.50	4.000	4.000	2.066	1.934	0.380	0.0	0.0	0.0	0.0	0.0	0.0	1037.7	1015.9	0.0	28.5	0.0
28.00	4.000	4.000	2.066	1.934	0.400	0.0	0.0	0.0	0.0	0.0	0.0	1056.6	1033.0	0.0	30.3	0.0
28.50	4.000	4.000	2.066	1.934	0.419	0.0	0.0	0.0	0.0	0.0	0.0	1075.5	1049.9	0.0	32.3	0.0
29.00	4.000	4.000	2.066	1.934	0.451	0.0	0.0	0.0	0.0	0.0	0.0	1094.3	1066.7	0.0	34.3	0.0
29.50	4.000	4.000	2.066	1.934	0.482	0.0	0.0	0.0	0.0	0.0	0.0	1113.2	1083.3	0.0	36.5	0.0
30.00	4.000	4.000	2.066	1.934	0.513	0.0	0.0	0.0	0.0	0.0	0.0	1132.1	1099.9	0.0	38.9	0.0
30.50	4.000	4.000	2.066	1.934	0.543	0.0	0.0	0.0	0.0	0.0	0.0	1150.9	1123.6	0.0	41.4	0.0
31.00	4.000	4.000	2.066	1.934	0.574	0.0	0.0	0.0	0.0	0.0	0.0	1169.8	1139.8	0.0	44.1	0.0
31.50	4.000	4.000	2.066	1.934	0.604	0.0	0.0	0.0	0.0	0.0	0.0	1188.7	1155.9	0.0	46.9	0.0
32.00	4.000	4.000	2.066	1.934	0.645	0.0	0.0	0.0	0.0	0.0	0.0	1207.5	1171.8	0.0	49.8	0.0
32.50	4.000	4.000	2.066	1.934	0.715	0.0	0.0	0.0	0.0	0.0	0.0	1226.4	1187.4	0.0	53.0	0.0
33.00	4.000	4.000	2.066	1.934	0.781	0.0	0.0	0.0	0.0	0.0	0.0	1245.3	1202.5	0.0	56.8	0.0
33.50	4.000	4.000	2.066	1.934	0.907	0.253	0.0	0.063	0.0	0.0	0.0	1264.2	1217.0	0.0	60.9	0.3
34.00	4.000	4.000	2.066	1.934	0.943	2.782	0.0	0.695	0.0	0.0	0.0	1283.0	1222.8	0.0	65.3	8.9
34.50	4.000	4.000	2.066	1.934	0.945	3.136	0.0	0.784	0.0	0.0	0.0	1301.9	1222.7	0.0	69.8	23.5
35.00	4.000	4.000	2.066	1.934	0.944	3.105	0.0	0.776	0.0	0.0	0.0	1320.8	1222.4	0.0	74.2	38.2
35.50	4.000	4.000	2.066	1.934	0.942	3.049	0.0	0.762	0.0	0.0	0.0	1339.6	1222.2	0.0	78.7	52.8
36.00	4.000	4.000	2.066	1.934	0.943	2.979	0.0	0.745	0.0	0.0	0.0	1358.5	1222.5	0.0	83.1	66.9
36.50	4.000	4.000	2.066	1.934	0.947	2.996	0.0	0.749	0.0	0.0	0.0	1377.4	1222.9	0.0	87.6	81.0
37.00	4.000	4.000	2.066	1.934	0.949	3.093	0.0	0.773	0.0	0.0	0.0	1396.2	1222.8	0.0	92.1	95.4
37.50	4.000	4.000	2.066	1.934	0.950	3.115	0.0	0.779	0.0	0.0	0.0	1415.1	1222.6	0.0	96.5	110.1
38.00	4.000	4.000	2.066	1.934	0.934	2.865	0.0	0.716	0.0	0.0	0.0	1434.0	1222.8	0.0	101.0	124.3
38.50	4.000	4.000	2.066	1.934	0.931	2.670	0.0	0.667	0.0	0.0	0.0	1452.8	1224.4	0.0	105.4	137.1
39.00	4.000	4.000	2.066	1.934	0.940	2.641	0.0	0.660	0.0	0.0	0.0	1471.7	1226.4	0.0	109.8	149.6
39.50	4.000	4.000	2.066	1.934	0.945	2.903	0.0	0.726	0.0	0.0	0.0	1490.6	1227.6	0.0	114.2	162.8
40.00	4.000	4.000	2.066	1.934	0.947	2.979	0.0	0.745	0.0	0.0	0.0	1509.4	1228.0	0.0	118.7	176.8
40.50	4.000	4.000	2.066	1.934	0.951	3.009	0.0	0.752	0.0	0.0	0.0	1528.3	1228.3	0.0	123.2	190.9
41.00	4.000	4.000	2.066	1.934	0.953	3.095	0.0	0.774	0.0	0.0	0.0	1547.2	1228.2	0.0	127.7	205.3
41.50	4.000	4.000	2.066	1.934	0.953	3.110	0.0	0.777	0.0	0.0	0.0	1566.0	1227.9	0.0	132.2	220.0
42.00	4.000	4.000	2.066	1.934	0.954	3.110	0.0	0.778	0.0	0.0	0.0	1584.9	1227.6	0.0	136.7	234.6
42.50	4.000	4.000	2.066	1.934	0.955	3.115	0.0	0.779	0.0	0.0	0.0	1603.8	1227.3	0.0	141.2	249.3
43.00	4.000	4.000	2.066	1.934	0.954	3.085	0.0	0.771	0.0	0.0	0.0	1622.6	1227.0	0.0	145.7	264.0
43.50	4.000	4.000	2.066	1.934	0.954	3.057	0.0	0.764	0.0	0.0	0.0	1641.5	1226.9	0.0	150.2	278.5
44.00	4.000	4.000	2.066	1.934	0.954	2.996	0.0	0.749	0.0	0.0	0.0	1660.4	1227.0	0.0	154.7	292.7
44.50	4.000	4.000	2.066	1.934	0.957	3.003	0.0	0.751	0.0	0.0	0.0	1679.2	1227.2	0.0	159.2	306.9
45.00	4.000	4.000	2.066	1.934	0.958	3.070	0.0	0.767	0.0	0.0	0.0	1698.1	1227.2	0.0	163.7	321.2
45.50	4.000	4.000	2.066	1.934	0.959	3.081	0.0	0.770	0.0	0.0	0.0	1717.0	1227.1	0.0	168.2	335.7
46.00	4.000	4.000	2.066	1.934	0.960	3.079	0.0	0.770	0.0	0.0	0.0	1735.8	1226.9	0.0	172.8	350.3
46.50	4.000	4.000	2.066	1.934	0.961	3.082	0.0	0.770	0.0	0.0	0.0	1754.7	1226.7	0.0	177.3	364.8
47.00	4.000	4.000	2.066	1.934	0.962	3.087	0.0	0.772	0.0	0.0	0.0	1773.6	1226.5	0.0	181.8	379.4
47.50	4.000	4.000	2.066	1.934	0.959	3.033	0.0	0.758	0.0	0.0	0.0	1792.5	1226.4	0.0	186.3	393.7
48.00	4.000	4.000	2.066	1.934	0.958	2.971	0.0	0.743	0.0	0.0	0.0	1811.3	1226.7	0.0	190.9	407.8
48.50	4.000	4.000	2.066	1.934	0.962	2.975	0.0	0.744	0.0	0.0	0.0	1830.2	1227.0	0.0	195.4	421.8
49.00	4.000	4.000	2.066	1.934	0.964	3.047	0.0	0.762	0.0	0.0	0.0	1849.1	1227.1	0.0	199.9	436.1
49.50	4.000	4.000	2.066	1.934	0.964	3.067	0.0	0.767	0.0	0.0	0.0	1867.9	1227.0	0.0	204.5	450.5

*** TIME = 50.000 (SEC) **** INLET AND OUTLET CONDITION ****

TQN2(C)	ZB2(M)	TQN5(C)	ZB5(M)	DD(IB4)(MM)	DD(N1)(MM)	DP(M)	CRATIO
406.70	1.2285	0.0	3.6400	1.3295	1.6620	1.4313	0.76635

P, RL, RGST 2.0000D+04 7.4225D-06 8.7246D-09

I	IP	AG(I)	PC(I)	HT(I)	HR(I)	HCV(I)	UG(I)	UL(I)	TW(I)	TL/TG(I)	G(I)
1	1	0.0	2.000D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	100.0	1.069D-03
2	1	0.0	1.996D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.0	1.069D-03
3	1	0.0	1.992D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.9	1.069D-03
4	1	0.0	1.989D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	102.9	1.069D-03
5	1	0.0	1.985D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	103.8	1.069D-03
6	1	0.0	1.981D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	104.8	1.069D-03
7	1	0.0	1.977D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	105.8	1.069D-03
8	1	0.0	1.974D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	106.7	1.069D-03
9	1	0.0	1.970D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	107.7	1.069D-03
10	1	0.0	1.966D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	108.6	1.069D-03
11	1	0.0	1.962D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	109.6	1.069D-03
12	1	0.0	1.958D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	110.6	1.069D-03
13	1	0.0	1.955D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	111.5	1.069D-03
14	1	0.0	1.951D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	112.5	1.069D-03
15	1	0.0	1.947D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	114.4	1.069D-03
16	1	0.0	1.943D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	116.2	1.069D-03
17	1	0.0	1.940D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	118.1	1.069D-03
18	3	0.0120	1.936D+04	2564.	0.0	6.368D+06	1410.	145.7	130.0	120.0	1.069D-03
19	3	0.1161	1.932D+04	2564.	0.0	6.368D+06	3907.	162.3	130.0	119.6	1.069D-03
20	3	0.1818	1.929D+04	2564.	0.0	6.368D+06	4896.	174.7	130.0	119.6	1.069D-03
21	3	0.2205	1.926D+04	2564.	0.0	6.368D+06	6017.	182.7	130.0	119.6	1.069D-03
22	3	0.2529	1.923D+04	2564.	0.0	6.368D+06	6973.	190.0	130.0	119.6	1.069D-03
23	3	0.2812	1.920D+04	2564.	0.0	6.368D+06	7824.	196.7	130.0	119.6	1.069D-03
24	3	0.3066	1.917D+04	2564.	0.0	6.368D+06	8599.	203.2	130.0	119.6	1.069D-03
25	3	0.3299	1.915D+04	3411.	0.0	9.317D+06	9315.	209.5	131.1	119.6	1.069D-03
26	3	0.3610	1.912D+04	3411.	0.0	9.317D+06	1.028D+04	218.5	131.1	119.6	1.069D-03
27	3	0.3894	1.910D+04	3411.	0.0	9.317D+06	1.118D+04	227.4	131.1	119.6	1.069D-03
28	3	0.4155	1.907D+04	3411.	0.0	9.317D+06	1.201D+04	236.3	131.1	119.6	1.069D-03
29	3	0.4400	1.905D+04	3411.	0.0	9.317D+06	1.280D+04	245.3	131.1	119.6	1.069D-03
30	3	0.4630	1.903D+04	3411.	0.0	9.317D+06	1.354D+04	254.4	131.1	119.6	1.069D-03
31	3	0.4850	1.901D+04	3411.	0.0	9.317D+06	1.426D+04	263.8	131.1	119.6	1.069D-03
32	4	0.5712	1.899D+04	247.8	9.702D+05	1.627D+07	1.713D+04	308.9	411.5	119.6	1.069D-03
33	4	0.5968	1.897D+04	171.7	1.014D+06	1.141D+07	1.800D+04	324.4	423.0	119.6	1.065D-03
34	4	0.6170	1.896D+04	148.5	1.034D+06	9.964D+06	1.869D+04	338.6	430.3	119.6	1.063D-03
35	4	0.6348	1.894D+04	135.1	1.045D+06	9.134D+06	1.931D+04	352.3	435.7	119.6	1.062D-03
36	4	0.6509	1.893D+04	128.8	2.035D+06	1.146D+07	1.987D+04	366.0	559.0	119.6	1.061D-03
37	4	0.6717	1.891D+04	121.3	2.030D+06	1.084D+07	2.060D+04	385.8	564.6	119.6	1.061D-03
38	4	0.6909	1.890D+04	115.2	2.020D+06	1.033D+07	2.128D+04	406.3	569.5	119.6	1.060D-03
39	4	0.7088	1.889D+04	109.9	2.004D+06	9.900D+06	2.192D+04	427.8	573.9	119.6	1.060D-03
40	5	0.7311	1.888D+04	73.41	4.071D+06	4.208D+06	2.235D+04	459.9	592.8	119.6	1.060D-03
41	5	0.7430	1.886D+04	74.65	4.225D+06	4.331D+06	2.290D+04	480.0	600.5	128.9	1.061D-03
42	5	0.7633	1.884D+04	75.50	4.222D+06	4.429D+06	2.312D+04	519.3	600.3	132.0	1.061D-03
43	5	0.7851	1.882D+04	76.42	4.220D+06	4.535D+06	2.330D+04	569.4	600.2	134.3	1.062D-03
44	5	0.8070	1.881D+04	77.36	4.218D+06	4.643D+06	2.350D+04	631.2	600.1	136.7	1.063D-03
45	5	0.8285	1.879D+04	78.29	4.213D+06	4.750D+06	2.373D+04	707.5	599.9	139.4	1.064D-03
46	5	0.8494	1.878D+04	79.23	4.213D+06	4.857D+06	2.402D+04	802.0	599.9	142.6	1.065D-03
47	5	0.8692	1.877D+04	80.14	4.211D+06	4.962D+06	2.438D+04	919.9	599.8	146.7	1.066D-03
48	5	0.8877	1.876D+04	81.02	4.209D+06	5.063D+06	2.484D+04	1067.	599.7	151.8	1.067D-03
49	5	0.9045	1.875D+04	81.84	4.206D+06	5.157D+06	2.542D+04	1249.	599.6	158.4	1.068D-03
50	5	0.9193	1.874D+04	82.61	4.206D+06	5.245D+06	2.616D+04	1472.	599.6	166.6	1.069D-03

51	5	0.9319	1.873D+04	83.27	4.205D+06	5.321D+06	2.707D+04	1737.	599.5	176.9	1.070D-03
52	5	0.9423	1.873D+04	81.13	3.903D+06	5.384D+06	2.819D+04	2042.	599.8	189.5	1.071D-03
53	5	0.9505	1.872D+04	75.97	3.291D+06	5.457D+06	2.949D+04	2369.	602.6	204.2	1.071D-03
54	5	0.9566	1.872D+04	71.94	2.836D+06	5.513D+06	3.093D+04	2692.	606.4	221.1	1.072D-03
55	5	0.9614	1.872D+04	68.55	2.475D+06	5.532D+06	3.247D+04	3010.	609.5	239.0	1.072D-03
56	5	0.9651	1.871D+04	54.95	1.215D+06	3.733D+06	3.405D+04	3320.	497.2	257.4	1.073D-03
57	5	0.9676	1.871D+04	56.47	1.147D+06	3.896D+06	3.321D+04	3570.	494.1	239.2	1.073D-03
58	5	0.9696	1.871D+04	56.08	1.078D+06	3.936D+06	3.352D+04	3797.	494.5	239.4	1.073D-03
59	5	0.9713	1.871D+04	55.06	1.010D+06	3.924D+06	3.420D+04	4014.	495.4	245.5	1.074D-03
60	5	0.9728	1.870D+04	53.88	9.486D+05	3.892D+06	3.500D+04	4225.	496.4	253.3	1.074D-03
61	5	0.9742	1.870D+04	52.67	8.933D+05	3.851D+06	3.584D+04	4432.	497.4	261.6	1.074D-03
62	5	0.9753	1.870D+04	51.46	8.439D+05	3.805D+06	3.668D+04	4634.	498.3	269.9	1.074D-03
63	5	0.9764	1.870D+04	50.28	7.998D+05	3.754D+06	3.751D+04	4833.	499.3	278.2	1.074D-03
64	5	0.9774	1.869D+04	49.12	7.602D+05	3.700D+06	3.834D+04	5027.	500.2	286.3	1.074D-03
65	5	0.9782	1.869D+04	47.98	7.244D+05	3.642D+06	3.915D+04	5216.	501.1	294.2	1.075D-03
66	5	0.9790	1.869D+04	46.86	6.921D+05	3.582D+06	3.995D+04	5402.	502.0	301.8	1.075D-03
67	5	0.9797	1.869D+04	45.75	6.625D+05	3.519D+06	4.074D+04	5584.	502.7	309.2	1.075D-03
68	5	0.9804	1.869D+04	25.25	3.097D+05	1.301D+06	4.150D+04	5762.	386.5	316.3	1.075D-03
69	5	0.9809	1.868D+04	37.62	3.119D+05	2.004D+06	3.780D+04	5918.	377.5	260.7	1.075D-03
70	5	0.9814	1.868D+04	41.47	3.117D+05	2.227D+06	3.676D+04	6056.	376.2	243.4	1.075D-03
71	5	0.9818	1.868D+04	42.31	3.064D+05	2.280D+06	3.666D+04	6183.	375.9	239.7	1.075D-03
72	5	0.9822	1.868D+04	42.26	3.001D+05	2.285D+06	3.685D+04	6307.	376.0	240.1	1.075D-03
73	5	0.9825	1.868D+04	41.90	2.933D+05	2.271D+06	3.714D+04	6428.	376.2	242.0	1.075D-03
74	5	0.9829	1.868D+04	41.46	2.869D+05	2.254D+06	3.747D+04	6548.	376.5	244.3	1.076D-03
75	5	0.9832	1.867D+04	40.94	2.805D+05	2.230D+06	3.781D+04	6667.	376.7	246.9	1.076D-03
76	5	0.9835	1.867D+04	40.38	2.743D+05	2.205D+06	3.816D+04	6785.	376.9	249.6	1.076D-03
77	5	0.9838	1.867D+04	39.78	2.683D+05	2.176D+06	3.853D+04	6901.	377.2	252.5	1.076D-03
78	5	0.9841	1.867D+04	11.59	1.106D+05	3.171D+05	3.891D+04	7017.	273.4	255.5	1.076D-03
79	5	0.9844	1.867D+04	30.77	1.100D+05	9.569D+05	3.542D+04	7123.	264.9	206.3	1.076D-03
80	5	0.9846	1.867D+04	31.82	1.091D+05	9.935D+05	3.534D+04	7206.	264.8	203.9	1.076D-03
81	5	0.9847	1.867D+04	31.51	1.073D+05	9.827D+05	3.548D+04	7287.	264.5	204.4	1.076D-03
82	5	0.9849	1.866D+04	31.99	1.063D+05	9.993D+05	3.549D+04	7367.	264.4	203.3	1.076D-03
83	5	0.9851	1.866D+04	31.74	1.049D+05	9.919D+05	3.564D+04	7446.	264.4	204.0	1.076D-03
84	5	0.9853	1.866D+04	31.15	1.035D+05	9.735D+05	3.584D+04	7524.	264.5	205.5	1.076D-03
85	5	0.9854	1.866D+04	30.42	1.020D+05	9.502D+05	3.607D+04	7602.	264.5	207.2	1.076D-03
86	5	0.9856	1.866D+04	29.68	1.007D+05	9.270D+05	3.630D+04	7680.	264.6	209.0	1.077D-03
87	5	0.9857	1.866D+04	28.87	9.910D+04	8.998D+05	3.654D+04	7758.	264.5	210.9	1.077D-03
88	5	0.9859	1.865D+04	28.13	9.774D+04	8.762D+05	3.677D+04	7837.	264.6	212.6	1.077D-03
89	5	0.9860	1.865D+04	27.34	9.632D+04	8.503D+05	3.700D+04	7915.	264.6	214.4	1.077D-03
90	5	0.9862	1.865D+04	26.63	9.507D+04	8.275D+05	3.723D+04	7994.	264.7	216.1	1.077D-03
91	5	0.9863	1.865D+04	25.83	9.368D+04	8.009D+05	3.746D+04	8072.	264.6	217.8	1.077D-03

NAME(1)= 50

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)	---->	<---	(KG/M**2) AT CORE FLOW			--->
50.00	4.000	4.000	2.066	1.934	0.965	3.065	0.0	0.766	0.0	0.0	0.0	1886.8	1226.8	0.0	209.0	465.0
50.50	4.000	4.000	2.066	1.934	0.966	3.067	0.0	0.767	0.0	0.0	0.0	1905.7	1226.7	0.0	213.6	479.4
51.00	4.000	4.000	2.066	1.934	0.966	3.071	0.0	0.768	0.0	0.0	0.0	1924.5	1226.5	0.0	218.1	493.9
51.50	4.000	4.000	2.066	1.934	0.965	3.037	0.0	0.759	0.0	0.0	0.0	1943.4	1226.4	0.0	222.7	508.3
52.00	4.000	4.000	2.066	1.934	0.962	2.966	0.0	0.742	0.0	0.0	0.0	1962.3	1226.6	0.0	227.2	522.4
52.50	4.000	4.000	2.066	1.934	0.966	2.948	0.0	0.737	0.0	0.0	0.0	1981.1	1227.0	0.0	231.8	536.4
53.00	4.000	4.000	2.066	1.934	0.968	3.010	0.0	0.752	0.0	0.0	0.0	2000.0	1227.3	0.0	236.4	550.4
53.50	4.000	4.000	2.066	1.934	0.969	3.055	0.0	0.764	0.0	0.0	0.0	2018.9	1227.2	0.0	240.9	564.8
54.00	4.000	4.000	2.066	1.934	0.970	3.055	0.0	0.764	0.0	0.0	0.0	2037.7	1227.1	0.0	245.5	579.2
54.50	4.000	4.000	2.066	1.934	0.970	3.054	0.0	0.764	0.0	0.0	0.0	2056.6	1227.0	0.0	250.1	593.6
55.00	4.000	4.000	2.066	1.934	0.971	3.056	0.0	0.764	0.0	0.0	0.0	2075.5	1226.9	0.0	254.6	608.0
55.50	4.000	4.000	2.066	1.934	0.972	3.060	0.0	0.765	0.0	0.0	0.0	2094.3	1226.7	0.0	259.2	622.4
56.00	4.000	4.000	2.066	1.934	0.968	2.992	0.0	0.748	0.0	0.0	0.0	2113.2	1226.8	0.0	263.8	636.7
56.50	4.000	4.000	2.066	1.934	0.968	2.933	0.0	0.733	0.0	0.0	0.0	2132.1	1227.2	0.0	268.4	650.6
57.00	4.000	4.000	2.066	1.934	0.972	2.952	0.0	0.738	0.0	0.0	0.0	2150.9	1227.6	0.0	272.9	664.4
57.50	4.000	4.000	2.066	1.934	0.974	3.032	0.0	0.758	0.0	0.0	0.0	2169.8	1227.8	0.0	277.5	678.6
58.00	4.000	4.000	2.066	1.934	0.974	3.048	0.0	0.762	0.0	0.0	0.0	2188.7	1227.7	0.0	282.1	692.9
58.50	4.000	4.000	2.066	1.934	0.975	3.046	0.0	0.761	0.0	0.0	0.0	2207.5	1227.6	0.0	286.7	707.3
59.00	4.000	4.000	2.066	1.934	0.975	3.046	0.0	0.761	0.0	0.0	0.0	2226.4	1227.5	0.0	291.3	721.7
59.50	4.000	4.000	2.066	1.934	0.976	3.048	0.0	0.762	0.0	0.0	0.0	2245.3	1227.4	0.0	295.9	736.1
60.00	4.000	4.000	2.066	1.934	0.976	3.051	0.0	0.763	0.0	0.0	0.0	2264.2	1227.2	0.0	300.5	750.4
60.50	4.000	4.000	2.066	1.934	0.972	2.981	0.0	0.745	0.0	0.0	0.0	2283.0	1227.3	0.0	305.1	764.6
	60.600	35	19301.		21891.			18615.	92	0.0						
	60.600	36	20125.		21891.			19301.	92	0.0						
	60.600	37	20865.		21891.			20125.	92	0.0						
	60.600	38	21544.		21891.			20865.	92	0.0						
	60.600	39	22176.		21891.			21544.	92	0.0						
	60.700	35	19298.		21891.			18610.	92	0.0						
	60.700	36	20124.		21891.			19298.	92	0.0						
	60.700	37	20865.		21891.			20124.	92	0.0						
	60.700	38	21545.		21891.			20865.	92	0.0						
	60.700	39	22177.		21891.			21545.	92	0.0						
	60.800	35	19295.		21891.			18604.	92	0.0						
	60.800	36	20122.		21891.			19295.	92	0.0						
	60.800	37	20864.		21891.			20122.	92	0.0						
	60.800	38	21545.		21891.			20864.	92	0.0						
	60.800	39	22178.		21891.			21545.	92	0.0						
	60.900	35	19292.		21891.			18598.	92	0.0						
	60.900	36	20120.		21891.			19292.	92	0.0						
	60.900	37	20863.		21891.			20120.	92	0.0						
	60.900	38	21545.		21891.			20863.	92	0.0						
	60.900	39	22179.		21891.			21545.	92	0.0						
61.00	4.000	4.000	2.066	1.934	0.973	2.934	0.0	0.734	0.0	0.0	0.0	2301.9	1227.7	0.0	309.7	778.5
61.50	4.000	4.000	2.066	1.934	0.977	2.960	0.0	0.740	0.0	0.0	0.0	2320.8	1228.1	0.0	314.3	792.4
62.00	4.000	4.000	2.066	1.934	0.978	3.029	0.0	0.757	0.0	0.0	0.0	2339.6	1228.2	0.0	318.9	806.6
62.50	4.000	4.000	2.066	1.934	0.978	3.039	0.0	0.760	0.0	0.0	0.0	2358.5	1228.1	0.0	323.5	820.9
63.00	4.000	4.000	2.066	1.934	0.979	3.036	0.0	0.759	0.0	0.0	0.0	2377.4	1228.1	0.0	328.1	835.2
63.50	4.000	4.000	2.066	1.934	0.979	3.037	0.0	0.759	0.0	0.0	0.0	2396.2	1228.0	0.0	332.8	849.5
64.00	4.000	4.000	2.066	1.934	0.980	3.038	0.0	0.760	0.0	0.0	0.0	2415.1	1227.9	0.0	337.4	863.9
64.50	4.000	4.000	2.066	1.934	0.981	3.042	0.0	0.760	0.0	0.0	0.0	2434.0	1227.8	0.0	342.0	878.2
65.00	4.000	4.000	2.066	1.934	0.979	3.014	0.0	0.754	0.0	0.0	0.0	2452.8	1227.8	0.0	346.6	892.5
65.50	4.000	4.000	2.066	1.934	0.971	2.867	0.0	0.717	0.0	0.0	0.0	2471.7	1228.2	0.0	351.2	906.3
66.00	4.000	4.000	2.066	1.934	0.967	2.732	0.0	0.683	0.0	0.0	0.0	2490.6	1229.4	0.0	355.8	919.4

66.50	4.000	4.000	2.066	1.934	0.969	2.712	0.0	0.678	0.0	0.0	2509.4	1230.9	0.0	360.3	932.2
67.00	4.000	4.000	2.066	1.934	0.971	2.764	0.0	0.691	0.0	0.0	2528.3	1232.3	0.0	364.9	945.1
67.50	4.000	4.000	2.066	1.934	0.973	2.818	0.0	0.705	0.0	0.0	2547.2	1233.4	0.0	369.5	958.3
68.00	4.000	4.000	2.066	1.934	0.974	2.855	0.0	0.714	0.0	0.0	2566.0	1234.3	0.0	374.1	971.7
68.50	4.000	4.000	2.066	1.934	0.975	2.876	0.0	0.719	0.0	0.0	2584.9	1235.0	0.0	378.7	985.2
69.00	4.000	4.000	2.066	1.934	0.975	2.887	0.0	0.722	0.0	0.0	2603.8	1235.7	0.0	383.3	998.8
69.50	4.000	4.000	2.066	1.934	0.975	2.892	0.0	0.723	0.0	0.0	2622.6	1236.3	0.0	387.9	1012.5
70.00	4.000	4.000	2.066	1.934	0.975	2.893	0.0	0.723	0.0	0.0	2641.5	1236.9	0.0	392.5	1026.1
70.50	4.000	4.000	2.066	1.934	1.012	3.408	0.0	0.852	0.0	0.0	2660.4	1236.3	0.0	397.2	1041.0
71.00	4.000	4.000	2.066	1.934	1.002	3.648	0.0	0.912	0.0	0.0	2679.2	1233.4	0.0	402.0	1056.0
71.50	4.000	4.000	2.066	1.934	0.984	3.269	0.0	0.817	0.0	0.0	2698.1	1231.3	0.0	406.6	1074.3
72.00	4.000	4.000	2.066	1.934	0.980	2.930	0.0	0.733	0.0	0.0	2717.0	1231.2	0.0	411.3	1088.6
72.50	4.000	4.000	2.066	1.934	0.980	2.888	0.0	0.722	0.0	0.0	2735.8	1231.8	0.0	415.9	1102.2
73.00	4.000	4.000	2.066	1.934	0.984	2.934	0.0	0.734	0.0	0.0	2754.7	1232.3	0.0	420.5	1116.0
73.50	4.000	4.000	2.066	1.934	0.986	2.999	0.0	0.750	0.0	0.0	2773.6	1232.5	0.0	425.2	1130.0
74.00	4.000	4.000	2.066	1.934	0.987	3.032	0.0	0.758	0.0	0.0	2792.5	1232.4	0.0	429.8	1144.3
74.50	4.000	4.000	2.066	1.934	0.987	3.031	0.0	0.758	0.0	0.0	2811.3	1232.3	0.0	434.5	1158.6

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)	---->	<---	(KG/M**2) AT CORE FLOW			--->
75.00	4.000	4.000	2.066	1.934	0.988	3.028	0.0	0.757	0.0	0.0	0.0	2830.2	1232.3	0.0	439.1	1172.9
75.50	4.000	4.000	2.066	1.934	0.988	3.026	0.0	0.756	0.0	0.0	0.0	2849.1	1232.2	0.0	443.8	1187.1
76.00	4.000	4.000	2.066	1.934	0.988	3.023	0.0	0.756	0.0	0.0	0.0	2867.9	1232.1	0.0	448.4	1201.4
76.50	4.000	4.000	2.066	1.934	0.988	3.020	0.0	0.755	0.0	0.0	0.0	2886.8	1232.1	0.0	453.1	1215.6
77.00	4.000	4.000	2.066	1.934	0.988	3.017	0.0	0.754	0.0	0.0	0.0	2905.7	1232.1	0.0	457.8	1229.9
77.50	4.000	4.000	2.066	1.934	0.989	3.015	0.0	0.754	0.0	0.0	0.0	2924.5	1232.0	0.0	462.4	1244.1
78.00	4.000	4.000	2.066	1.934	0.989	3.012	0.0	0.753	0.0	0.0	0.0	2943.4	1232.0	0.0	467.1	1258.3
78.50	4.000	4.000	2.066	1.934	0.989	3.009	0.0	0.752	0.0	0.0	0.0	2962.3	1232.0	0.0	471.8	1272.5
79.00	4.000	4.000	2.066	1.934	0.989	3.007	0.0	0.752	0.0	0.0	0.0	2981.1	1232.0	0.0	476.4	1286.7
79.50	4.000	4.000	2.066	1.934	0.989	3.004	0.0	0.751	0.0	0.0	0.0	3000.0	1232.1	0.0	481.1	1300.9
80.00	4.000	4.000	2.066	1.934	0.990	3.001	0.0	0.750	0.0	0.0	0.0	3018.9	1232.1	0.0	485.8	1315.0
80.50	4.000	4.000	2.066	1.934	0.990	2.997	0.0	0.749	0.0	0.0	0.0	3037.7	1232.2	0.0	490.4	1329.2
81.00	4.000	4.000	2.066	1.934	0.990	2.993	0.0	0.748	0.0	0.0	0.0	3056.6	1232.2	0.0	495.1	1343.3
81.50	4.000	4.000	2.066	1.934	0.990	2.986	0.0	0.747	0.0	0.0	0.0	3075.5	1232.3	0.0	499.8	1357.4
82.00	4.000	4.000	2.066	1.934	0.985	2.912	0.0	0.728	0.0	0.0	0.0	3094.3	1232.6	0.0	504.4	1371.3
82.50	4.000	4.000	2.066	1.934	0.985	2.861	0.0	0.715	0.0	0.0	0.0	3113.2	1233.3	0.0	509.1	1384.9
83.00	4.000	4.000	2.066	1.934	0.990	2.911	0.0	0.728	0.0	0.0	0.0	3132.1	1233.9	0.0	513.7	1398.5
83.50	4.000	4.000	2.066	1.934	0.992	3.007	0.0	0.752	0.0	0.0	0.0	3150.9	1234.1	0.0	518.4	1412.5
84.00	4.000	4.000	2.066	1.934	0.993	3.027	0.0	0.757	0.0	0.0	0.0	3169.8	1234.0	0.0	523.1	1426.8
84.50	4.000	4.000	2.066	1.934	0.993	3.023	0.0	0.756	0.0	0.0	0.0	3188.7	1233.9	0.0	527.8	1441.0
85.00	4.000	4.000	2.066	1.934	0.993	3.019	0.0	0.755	0.0	0.0	0.0	3207.5	1233.9	0.0	532.4	1455.3
85.50	4.000	4.000	2.066	1.934	0.993	3.016	0.0	0.754	0.0	0.0	0.0	3226.4	1233.8	0.0	537.1	1469.5
86.00	4.000	4.000	2.066	1.934	0.993	3.013	0.0	0.753	0.0	0.0	0.0	3245.3	1233.8	0.0	541.8	1483.7
86.50	4.000	4.000	2.066	1.934	0.994	3.010	0.0	0.752	0.0	0.0	0.0	3264.2	1233.8	0.0	546.5	1497.9
87.00	4.000	4.000	2.066	1.934	0.994	3.007	0.0	0.752	0.0	0.0	0.0	3283.0	1233.8	0.0	551.2	1512.1
87.50	4.000	4.000	2.066	1.934	0.994	3.004	0.0	0.751	0.0	0.0	0.0	3301.9	1233.8	0.0	555.9	1526.3
88.00	4.000	4.000	2.066	1.934	0.994	3.001	0.0	0.750	0.0	0.0	0.0	3320.8	1233.8	0.0	560.6	1540.4
88.50	4.000	4.000	2.066	1.934	0.994	2.998	0.0	0.749	0.0	0.0	0.0	3339.6	1233.8	0.0	565.3	1554.6
89.00	4.000	4.000	2.066	1.934	0.994	2.994	0.0	0.749	0.0	0.0	0.0	3358.5	1233.9	0.0	569.9	1568.7
89.50	4.000	4.000	2.066	1.934	0.994	2.991	0.0	0.748	0.0	0.0	0.0	3377.4	1233.9	0.0	574.6	1582.8
90.00	4.000	4.000	2.066	1.934	0.994	2.988	0.0	0.747	0.0	0.0	0.0	3396.2	1234.0	0.0	579.3	1596.9
90.50	4.000	4.000	2.066	1.934	0.994	2.983	0.0	0.746	0.0	0.0	0.0	3415.1	1234.1	0.0	584.0	1611.0
91.00	4.000	4.000	2.066	1.934	0.994	2.978	0.0	0.744	0.0	0.0	0.0	3434.0	1234.2	0.0	588.7	1625.1
91.50	4.000	4.000	2.066	1.934	0.991	2.932	0.0	0.733	0.0	0.0	0.0	3452.8	1234.4	0.0	593.4	1639.1
92.00	4.000	4.000	2.066	1.934	0.988	2.862	0.0	0.716	0.0	0.0	0.0	3471.7	1235.0	0.0	598.1	1652.7
92.50	4.000	4.000	2.066	1.934	0.993	2.881	0.0	0.720	0.0	0.0	0.0	3490.6	1235.7	0.0	602.7	1666.2
93.00	4.000	4.000	2.066	1.934	0.996	2.970	0.0	0.743	0.0	0.0	0.0	3509.4	1236.0	0.0	607.4	1680.0
93.50	4.000	4.000	2.066	1.934	0.997	3.013	0.0	0.753	0.0	0.0	0.0	3528.3	1236.0	0.0	612.1	1694.2
94.00	4.000	4.000	2.066	1.934	0.997	3.012	0.0	0.753	0.0	0.0	0.0	3547.2	1236.0	0.0	616.8	1708.4
94.50	4.000	4.000	2.066	1.934	0.997	3.008	0.0	0.752	0.0	0.0	0.0	3566.0	1235.9	0.0	621.5	1722.6
95.00	4.000	4.000	2.066	1.934	0.997	3.005	0.0	0.751	0.0	0.0	0.0	3584.9	1235.9	0.0	626.2	1736.8
95.50	4.000	4.000	2.066	1.934	0.997	3.002	0.0	0.750	0.0	0.0	0.0	3603.8	1235.9	0.0	630.9	1751.0
96.00	4.000	4.000	2.066	1.934	0.998	2.999	0.0	0.750	0.0	0.0	0.0	3622.6	1235.9	0.0	635.7	1765.1
96.50	4.000	4.000	2.066	1.934	0.998	2.996	0.0	0.749	0.0	0.0	0.0	3641.5	1236.0	0.0	640.4	1779.2
97.00	4.000	4.000	2.066	1.934	0.998	2.993	0.0	0.748	0.0	0.0	0.0	3660.4	1236.0	0.0	645.1	1793.4
97.50	4.000	4.000	2.066	1.934	0.998	2.990	0.0	0.748	0.0	0.0	0.0	3679.2	1236.0	0.0	649.8	1807.5
98.00	4.000	4.000	2.066	1.934	0.998	2.987	0.0	0.747	0.0	0.0	0.0	3698.1	1236.1	0.0	654.5	1821.6
98.50	4.000	4.000	2.066	1.934	0.998	2.984	0.0	0.746	0.0	0.0	0.0	3717.0	1236.2	0.0	659.2	1835.7
99.00	4.000	4.000	2.066	1.934	0.998	2.981	0.0	0.745	0.0	0.0	0.0	3735.8	1236.3	0.0	663.9	1849.7
99.50	4.000	4.000	2.066	1.934	0.998	2.978	0.0	0.744	0.0	0.0	0.0	3754.7	1236.4	0.0	668.6	1863.8

*** TIME = 100.00 (SEC) **** INLET AND OUTLET CONDITION ****

TQN2(C)	Z82(M)	TQN5(C)	Z85(M)	DD(IB4)(MM)	DD(N1)(MM)	DP(M)	CRATIO
521.06	1.5146	0.0	3.6400	1.3295	1.8280	1.4236	0.74351

P, RL, RGST 2.0000D+04 7.4225D-06 8.7246D-09

I	IP	AG(I)	PG(I)	HT(I)	HR(I)	HCV(I)	UG(I)	UL(I)	TW(I)	TL/TG(I)	G(I)
1	1	0.0	2.000D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	100.0	1.069D-03
2	1	0.0	1.996D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.0	1.069D-03
3	1	0.0	1.992D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.9	1.069D-03
4	1	0.0	1.989D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	102.9	1.069D-03
5	1	0.0	1.985D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	103.8	1.069D-03
6	1	0.0	1.981D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	104.8	1.069D-03
7	1	0.0	1.977D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	105.8	1.069D-03
8	1	0.0	1.974D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	106.7	1.069D-03
9	1	0.0	1.970D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	107.7	1.069D-03
10	1	0.0	1.966D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	108.6	1.069D-03
11	1	0.0	1.962D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	109.6	1.069D-03
12	1	0.0	1.958D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	110.6	1.069D-03
13	1	0.0	1.955D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	111.5	1.069D-03
14	1	0.0	1.951D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	112.5	1.069D-03
15	1	0.0	1.947D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	114.4	1.069D-03
16	1	0.0	1.943D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	116.2	1.069D-03
17	1	0.0	1.940D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	118.1	1.069D-03
18	3	0.0119	1.936D+04	2564.	0.0	6.368D+06	1408.	145.7	130.0	120.0	1.069D-03
19	3	0.1161	1.932D+04	2564.	0.0	6.368D+06	3907.	162.3	130.0	119.6	1.069D-03
20	3	0.1818	1.929D+04	2564.	0.0	6.368D+06	4896.	174.7	130.0	119.6	1.069D-03
21	3	0.2205	1.926D+04	2564.	0.0	6.368D+06	6017.	182.7	130.0	119.6	1.069D-03
22	3	0.2529	1.923D+04	2564.	0.0	6.368D+06	6973.	190.0	130.0	119.6	1.069D-03
23	3	0.2812	1.920D+04	2564.	0.0	6.368D+06	7824.	196.7	130.0	119.6	1.069D-03
24	3	0.3066	1.917D+04	2564.	0.0	6.368D+06	8598.	203.2	130.0	119.6	1.069D-03
25	3	0.3299	1.915D+04	3411.	0.0	9.317D+06	9315.	209.5	131.1	119.6	1.069D-03
26	3	0.3610	1.912D+04	3411.	0.0	9.317D+06	1.028D+04	218.5	131.1	119.6	1.069D-03
27	3	0.3893	1.910D+04	3411.	0.0	9.317D+06	1.118D+04	227.4	131.1	119.6	1.069D-03
28	3	0.4155	1.907D+04	3411.	0.0	9.317D+06	1.201D+04	236.3	131.1	119.6	1.069D-03
29	3	0.4400	1.905D+04	3411.	0.0	9.317D+06	1.279D+04	245.3	131.1	119.6	1.069D-03
30	3	0.4629	1.903D+04	3411.	0.0	9.317D+06	1.354D+04	254.4	131.1	119.6	1.069D-03
31	3	0.4847	1.901D+04	3411.	0.0	9.317D+06	1.425D+04	263.7	131.1	119.6	1.069D-03
32	3	0.5054	1.899D+04	3411.	0.0	9.317D+06	1.493D+04	273.2	131.1	119.6	1.069D-03
33	3	0.5251	1.897D+04	3411.	0.0	9.317D+06	1.559D+04	283.0	131.1	119.6	1.069D-03
34	3	0.5441	1.895D+04	3411.	0.0	9.317D+06	1.622D+04	293.1	131.1	119.6	1.069D-03
35	3	0.5622	1.894D+04	3411.	0.0	9.317D+06	1.683D+04	303.5	131.1	119.6	1.069D-03
36	3	0.5798	1.892D+04	4391.	0.0	1.305D+07	1.742D+04	314.4	132.1	119.6	1.069D-03
37	3	0.6033	1.890D+04	4391.	0.0	1.305D+07	1.822D+04	330.4	132.1	119.6	1.069D-03
38	3	0.6258	1.889D+04	4391.	0.0	1.305D+07	1.900D+04	347.5	132.1	119.6	1.069D-03
39	4	0.6807	1.887D+04	272.2	1.647D+06	2.476D+07	2.092D+04	398.6	526.7	119.6	1.069D-03
40	4	0.7091	1.886D+04	164.6	2.153D+06	1.625D+07	2.194D+04	431.3	588.8	119.6	1.067D-03
41	5	0.7474	1.885D+04	81.73	5.685D+06	4.945D+06	2.238D+04	490.8	665.3	119.6	1.066D-03
42	5	0.7638	1.883D+04	82.34	5.649D+06	5.033D+06	2.310D+04	522.3	663.9	131.7	1.065D-03
43	5	0.7893	1.881D+04	83.25	5.603D+06	5.161D+06	2.338D+04	581.4	662.0	135.5	1.064D-03
44	5	0.8153	1.880D+04	84.20	5.555D+06	5.292D+06	2.366D+04	658.7	660.1	138.9	1.063D-03
45	5	0.8408	1.878D+04	85.15	5.507D+06	5.422D+06	2.399D+04	758.4	658.1	142.8	1.062D-03
46	5	0.8649	1.877D+04	86.09	5.462D+06	5.550D+06	2.440D+04	887.3	656.3	147.7	1.062D-03
47	5	0.8871	1.876D+04	87.00	5.417D+06	5.673D+06	2.495D+04	1054.	654.4	153.9	1.061D-03
48	5	0.9068	1.875D+04	87.87	5.375D+06	5.789D+06	2.566D+04	1269.	652.7	162.1	1.061D-03
49	5	0.9236	1.874D+04	88.66	5.337D+06	5.894D+06	2.659D+04	1537.	651.1	172.6	1.060D-03
50	5	0.9373	1.874D+04	89.35	5.305D+06	5.984D+06	2.776D+04	1861.	649.8	186.0	1.060D-03

51	5	0.9481	1.873D+04	82.93	4.460D+06	6.172D+06	2.920D+04	2234.	657.5	202.2	1.060D-03
52	5	0.9558	1.873D+04	77.85	3.813D+06	6.359D+06	3.093D+04	2606.	667.8	222.7	1.060D-03
53	5	0.9614	1.872D+04	73.88	3.322D+06	6.510D+06	3.285D+04	2972.	677.9	245.9	1.060D-03
54	5	0.9657	1.872D+04	70.58	2.936D+06	6.615D+06	3.491D+04	3327.	687.3	270.6	1.060D-03
55	5	0.9690	1.872D+04	67.65	2.622D+06	6.666D+06	3.706D+04	3668.	695.6	296.3	1.060D-03
56	5	0.9716	1.871D+04	53.95	1.385D+06	4.594D+06	3.924D+04	3994.	584.5	322.2	1.060D-03
57	5	0.9735	1.871D+04	55.50	1.308D+06	4.771D+06	3.825D+04	4253.	579.1	301.5	1.060D-03
58	5	0.9750	1.871D+04	55.32	1.239D+06	4.829D+06	3.857D+04	4495.	579.7	301.0	1.060D-03
59	5	0.9762	1.871D+04	54.39	1.173D+06	4.823D+06	3.944D+04	4727.	581.9	308.8	1.060D-03
60	5	0.9774	1.871D+04	53.17	1.111D+06	4.785D+06	4.052D+04	4950.	584.8	319.9	1.060D-03
61	5	0.9784	1.870D+04	51.83	1.056D+06	4.729D+06	4.169D+04	5167.	587.8	332.1	1.060D-03
62	5	0.9793	1.870D+04	50.44	1.006D+06	4.661D+06	4.289D+04	5378.	590.8	344.6	1.060D-03
63	5	0.9801	1.870D+04	49.05	9.620D+05	4.585D+06	4.409D+04	5582.	593.9	357.1	1.060D-03
64	5	0.9808	1.870D+04	47.66	9.223D+05	4.503D+06	4.527D+04	5781.	596.9	369.5	1.060D-03
65	5	0.9815	1.869D+04	46.29	8.866D+05	4.415D+06	4.645D+04	5975.	599.9	381.5	1.060D-03
66	5	0.9821	1.869D+04	44.94	8.545D+05	4.324D+06	4.760D+04	6164.	602.8	393.2	1.061D-03
67	5	0.9826	1.869D+04	43.60	8.253D+05	4.229D+06	4.872D+04	6347.	605.6	404.5	1.061D-03
68	5	0.9831	1.869D+04	22.03	4.231D+05	1.501D+06	4.982D+04	6526.	485.4	415.4	1.061D-03
69	5	0.9836	1.869D+04	32.20	3.966D+05	2.227D+06	4.525D+04	6682.	461.1	348.8	1.061D-03
70	5	0.9839	1.869D+04	36.90	3.884D+05	2.553D+06	4.343D+04	6828.	453.8	320.9	1.061D-03
71	5	0.9843	1.869D+04	38.47	3.811D+05	2.666D+06	4.297D+04	6967.	451.7	311.7	1.061D-03
72	5	0.9846	1.868D+04	38.80	3.739D+05	2.697D+06	4.305D+04	7102.	451.4	310.1	1.061D-03
73	5	0.9849	1.868D+04	38.67	3.667D+05	2.698D+06	4.333D+04	7234.	451.9	311.2	1.061D-03
74	5	0.9852	1.868D+04	38.35	3.599D+05	2.687D+06	4.370D+04	7364.	452.6	313.6	1.061D-03
75	5	0.9855	1.868D+04	37.92	3.533D+05	2.666D+06	4.411D+04	7492.	453.4	316.5	1.061D-03
76	5	0.9857	1.868D+04	37.46	3.470D+05	2.644D+06	4.453D+04	7619.	454.3	319.6	1.061D-03
77	5	0.9860	1.868D+04	36.97	3.410D+05	2.619D+06	4.497D+04	7743.	455.3	322.9	1.061D-03
78	5	0.9862	1.867D+04	9.418	1.564D+05	3.493D+05	4.541D+04	7867.	343.7	326.3	1.061D-03
79	5	0.9864	1.867D+04	25.33	1.420D+05	1.065D+06	4.061D+04	7979.	319.2	260.9	1.061D-03
80	5	0.9866	1.867D+04	31.23	1.416D+05	1.322D+06	3.927D+04	8075.	316.1	241.6	1.061D-03
81	5	0.9868	1.867D+04	30.73	1.401D+05	1.304D+06	3.955D+04	8164.	316.7	243.6	1.061D-03
82	5	0.9869	1.867D+04	29.45	1.382D+05	1.252D+06	4.000D+04	8253.	317.4	248.0	1.061D-03
83	5	0.9871	1.867D+04	28.11	1.360D+05	1.194D+06	4.044D+04	8342.	317.9	252.3	1.061D-03
84	5	0.9872	1.867D+04	26.74	1.336D+05	1.133D+06	4.088D+04	8431.	318.2	256.4	1.061D-03
85	5	0.9874	1.867D+04	26.86	1.322D+05	1.141D+06	4.099D+04	8521.	318.2	256.2	1.061D-03
86	5	0.9875	1.866D+04	27.23	1.314D+05	1.162D+06	4.106D+04	8610.	318.6	255.6	1.061D-03
87	5	0.9876	1.866D+04	26.96	1.302D+05	1.154D+06	4.127D+04	8697.	319.2	256.8	1.061D-03
88	5	0.9878	1.866D+04	26.41	1.290D+05	1.133D+06	4.156D+04	8784.	319.9	259.0	1.061D-03
89	5	0.9879	1.866D+04	25.70	1.277D+05	1.105D+06	4.188D+04	8871.	320.5	261.5	1.061D-03
90	5	0.9880	1.866D+04	24.99	1.265D+05	1.076D+06	4.220D+04	8958.	321.3	264.2	1.061D-03
91	5	0.9882	1.866D+04	24.22	1.253D+05	1.044D+06	4.253D+04	9044.	322.0	266.9	1.061D-03

NAME(1)= 100

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)		---->	<---	(KG/M**2) AT CORE FLOW		--->
100.00	4.000	4.000	2.066	1.934	0.998	2.974	0.0	0.744	0.0	0.0	0.0	3773.6	1236.5	0.0	673.3	1877.8
100.50	4.000	4.000	2.066	1.934	0.998	2.970	0.0	0.742	0.0	0.0	0.0	3792.5	1236.7	0.0	678.0	1891.8
101.00	4.000	4.000	2.066	1.934	0.998	2.964	0.0	0.741	0.0	0.0	0.0	3811.3	1236.8	0.0	682.7	1905.8
101.50	4.000	4.000	2.066	1.934	0.994	2.910	0.0	0.727	0.0	0.0	0.0	3830.2	1237.1	0.0	687.4	1919.7
102.00	4.000	4.000	2.066	1.934	0.992	2.853	0.0	0.713	0.0	0.0	0.0	3849.1	1237.8	0.0	692.1	1933.2
102.50	4.000	4.000	2.066	1.934	0.998	2.892	0.0	0.723	0.0	0.0	0.0	3867.9	1238.4	0.0	696.8	1946.8
103.00	4.000	4.000	2.066	1.934	1.000	2.978	0.0	0.744	0.0	0.0	0.0	3886.8	1238.7	0.0	701.5	1960.7
103.50	4.000	4.000	2.066	1.934	1.000	2.998	0.0	0.750	0.0	0.0	0.0	3905.7	1238.7	0.0	706.2	1974.8
104.00	4.000	4.000	2.066	1.934	1.000	2.994	0.0	0.749	0.0	0.0	0.0	3924.5	1238.7	0.0	710.9	1988.9
104.50	4.000	4.000	2.066	1.934	1.000	2.990	0.0	0.748	0.0	0.0	0.0	3943.4	1238.7	0.0	715.7	2003.0
105.00	4.000	4.000	2.066	1.934	1.000	2.987	0.0	0.747	0.0	0.0	0.0	3962.3	1238.8	0.0	720.4	2017.1
105.50	4.000	4.000	2.066	1.934	1.000	2.983	0.0	0.746	0.0	0.0	0.0	3981.1	1238.9	0.0	725.1	2031.2
106.00	4.000	4.000	2.066	1.934	1.000	2.980	0.0	0.745	0.0	0.0	0.0	4000.0	1239.0	0.0	729.8	2045.3
106.50	4.000	4.000	2.066	1.934	1.000	2.976	0.0	0.744	0.0	0.0	0.0	4018.9	1239.1	0.0	734.5	2059.3
107.00	4.000	4.000	2.066	1.934	1.000	2.972	0.0	0.743	0.0	0.0	0.0	4037.7	1239.2	0.0	739.3	2073.3
107.50	4.000	4.000	2.066	1.934	1.000	2.969	0.0	0.742	0.0	0.0	0.0	4056.6	1239.3	0.0	744.0	2087.3
108.00	4.000	4.000	2.066	1.934	1.000	2.965	0.0	0.741	0.0	0.0	0.0	4075.5	1239.5	0.0	748.7	2101.3
108.50	4.000	4.000	2.066	1.934	1.000	2.961	0.0	0.740	0.0	0.0	0.0	4094.3	1239.7	0.0	753.4	2115.3
109.00	4.000	4.000	2.066	1.934	1.000	2.957	0.0	0.739	0.0	0.0	0.0	4113.2	1239.8	0.0	758.1	2129.3
109.50	4.000	4.000	2.066	1.934	1.000	2.953	0.0	0.738	0.0	0.0	0.0	4132.1	1240.1	0.0	762.8	2143.2
110.00	4.000	4.000	2.066	1.934	1.000	2.949	0.0	0.737	0.0	0.0	0.0	4150.9	1240.3	0.0	767.6	2157.1
110.50	4.000	4.000	2.066	1.934	1.000	2.944	0.0	0.736	0.0	0.0	0.0	4169.8	1240.5	0.0	772.3	2171.0
111.00	4.000	4.000	2.066	1.934	0.999	2.938	0.0	0.735	0.0	0.0	0.0	4188.7	1240.8	0.0	777.0	2184.9
111.50	4.000	4.000	2.066	1.934	0.999	2.931	0.0	0.733	0.0	0.0	0.0	4207.5	1241.1	0.0	781.7	2198.7
112.00	4.000	4.000	2.066	1.934	0.998	2.918	0.0	0.730	0.0	0.0	0.0	4226.4	1241.5	0.0	786.4	2212.5
112.50	4.000	4.000	2.066	1.934	0.993	2.835	0.0	0.709	0.0	0.0	0.0	4245.3	1242.2	0.0	791.1	2226.0
113.00	4.000	4.000	2.066	1.934	0.997	2.845	0.0	0.711	0.0	0.0	0.0	4264.2	1243.0	0.0	795.8	2239.4
113.50	4.000	4.000	2.066	1.934	1.001	2.919	0.0	0.730	0.0	0.0	0.0	4283.0	1243.5	0.0	800.5	2253.0
114.00	4.000	4.000	2.066	1.934	1.001	2.967	0.0	0.742	0.0	0.0	0.0	4301.9	1243.7	0.0	805.2	2267.0
114.50	4.000	4.000	2.066	1.934	1.002	2.968	0.0	0.742	0.0	0.0	0.0	4320.8	1243.9	0.0	810.0	2281.0
115.00	4.000	4.000	2.066	1.934	1.002	2.966	0.0	0.742	0.0	0.0	0.0	4339.6	1244.0	0.0	814.7	2295.0
115.50	4.000	4.000	2.066	1.934	1.002	2.965	0.0	0.741	0.0	0.0	0.0	4358.5	1244.2	0.0	819.4	2308.9
116.00	4.000	4.000	2.066	1.934	1.002	2.964	0.0	0.741	0.0	0.0	0.0	4377.4	1244.3	0.0	824.1	2322.9
116.50	4.000	4.000	2.066	1.934	1.002	2.963	0.0	0.741	0.0	0.0	0.0	4396.2	1244.5	0.0	828.9	2336.9
117.00	4.000	4.000	2.066	1.934	1.002	2.962	0.0	0.740	0.0	0.0	0.0	4415.1	1244.7	0.0	833.6	2350.9
117.50	4.000	4.000	2.066	1.934	1.002	2.961	0.0	0.740	0.0	0.0	0.0	4434.0	1244.8	0.0	838.3	2364.8
118.00	4.000	4.000	2.066	1.934	1.002	2.959	0.0	0.740	0.0	0.0	0.0	4452.8	1245.0	0.0	843.0	2378.8
118.50	4.000	4.000	2.066	1.934	1.002	2.958	0.0	0.740	0.0	0.0	0.0	4471.7	1245.2	0.0	847.8	2392.8
119.00	4.000	4.000	2.066	1.934	1.002	2.957	0.0	0.739	0.0	0.0	0.0	4490.6	1245.4	0.0	852.5	2406.7
119.50	4.000	4.000	2.066	1.934	1.002	2.956	0.0	0.739	0.0	0.0	0.0	4509.4	1245.6	0.0	857.2	2420.7
120.00	4.000	4.000	2.066	1.934	1.002	2.955	0.0	0.739	0.0	0.0	0.0	4528.3	1245.8	0.0	861.9	2434.6
120.50	4.000	4.000	2.066	1.934	1.002	2.953	0.0	0.738	0.0	0.0	0.0	4547.2	1246.0	0.0	866.7	2448.5
121.00	4.000	4.000	2.066	1.934	1.002	2.952	0.0	0.738	0.0	0.0	0.0	4566.0	1246.2	0.0	871.4	2462.5
121.50	4.000	4.000	2.066	1.934	1.002	2.951	0.0	0.738	0.0	0.0	0.0	4584.9	1246.4	0.0	876.1	2476.4
122.00	4.000	4.000	2.066	1.934	1.002	2.949	0.0	0.737	0.0	0.0	0.0	4603.8	1246.7	0.0	880.9	2490.3
122.50	4.000	4.000	2.066	1.934	1.063	3.629	0.0	0.907	0.0	0.0	0.0	4622.6	1246.2	0.0	885.6	2504.8
123.00	4.000	4.000	2.066	1.934	1.067	4.447	0.0	1.112	0.0	0.0	0.0	4641.5	1240.0	0.0	890.7	2524.8
123.50	4.000	4.000	2.066	1.934	1.021	3.707	0.0	0.927	0.0	0.0	0.0	4660.4	1234.8	0.0	895.6	2544.0
124.00	4.000	4.000	2.066	1.934	1.009	3.034	0.0	0.759	0.0	0.0	0.0	4679.2	1233.6	0.0	900.4	2559.3
124.50	4.000	4.000	2.066	1.934	1.007	2.919	0.0	0.730	0.0	0.0	0.0	4698.1	1233.8	0.0	905.1	2573.2

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC)	AT CORE WATER STATE				------>		<---	(M.AQ)	---->	<---	(KG/M**2)	AT CORE FLOW		--->
125.00	4.000	4.000	2.066	1.934	1.007	2.911	0.0	0.728	0.0	0.0	0.0	4717.0	1234.2	0.0	909.9	2586.9
125.50	4.000	4.000	2.066	1.934	1.007	2.905	0.0	0.726	0.0	0.0	0.0	4735.8	1234.6	0.0	914.6	2600.7
126.00	4.000	4.000	2.066	1.934	1.006	2.897	0.0	0.724	0.0	0.0	0.0	4754.7	1235.0	0.0	919.4	2614.3
126.50	4.000	4.000	2.066	1.934	0.977	2.592	0.0	0.648	0.0	0.0	0.0	4773.6	1235.8	0.0	924.1	2627.7
127.00	4.000	4.000	2.066	1.934	0.953	2.167	0.0	0.542	0.0	0.0	0.0	4792.5	1239.4	0.0	928.6	2638.4
127.50	4.000	4.000	2.066	1.934	0.984	2.252	0.0	0.563	0.0	0.0	0.0	4811.3	1243.3	0.0	933.2	2648.8
128.00	4.000	4.000	2.066	1.934	1.002	2.705	0.0	0.676	0.0	0.0	0.0	4830.2	1245.7	0.0	937.9	2660.6
128.50	4.000	4.000	2.066	1.934	1.004	2.927	0.0	0.732	0.0	0.0	0.0	4849.1	1246.3	0.0	942.6	2674.2
129.00	4.000	4.000	2.066	1.934	1.004	2.936	0.0	0.734	0.0	0.0	0.0	4867.9	1246.6	0.0	947.4	2688.0
129.50	4.000	4.000	2.066	1.934	1.004	2.935	0.0	0.734	0.0	0.0	0.0	4886.8	1246.9	0.0	952.1	2701.9
130.00	4.000	4.000	2.066	1.934	1.004	2.934	0.0	0.734	0.0	0.0	0.0	4905.7	1247.1	0.0	956.8	2715.7
130.50	4.000	4.000	2.066	1.934	1.004	2.933	0.0	0.733	0.0	0.0	0.0	4924.5	1247.4	0.0	961.6	2729.6
131.00	4.000	4.000	2.066	1.934	1.004	2.932	0.0	0.733	0.0	0.0	0.0	4943.4	1247.7	0.0	966.3	2743.4
131.50	4.000	4.000	2.066	1.934	1.004	2.930	0.0	0.732	0.0	0.0	0.0	4962.3	1248.0	0.0	971.1	2757.2
132.00	4.000	4.000	2.066	1.934	1.004	2.927	0.0	0.732	0.0	0.0	0.0	4981.1	1248.4	0.0	975.8	2771.0
132.50	4.000	4.000	2.066	1.934	1.004	2.924	0.0	0.731	0.0	0.0	0.0	5000.0	1248.7	0.0	980.5	2784.8
133.00	4.000	4.000	2.066	1.934	1.004	2.920	0.0	0.730	0.0	0.0	0.0	5018.9	1249.0	0.0	985.3	2798.6
133.50	4.000	4.000	2.066	1.934	1.003	2.913	0.0	0.728	0.0	0.0	0.0	5037.7	1249.4	0.0	990.0	2812.4
134.00	4.000	4.000	2.066	1.934	1.002	2.900	0.0	0.725	0.0	0.0	0.0	5056.6	1249.9	0.0	994.7	2826.1
134.50	4.000	4.000	2.066	1.934	1.003	2.898	0.0	0.724	0.0	0.0	0.0	5075.5	1250.4	0.0	999.4	2839.7
135.00	4.000	4.000	2.066	1.934	1.006	2.943	0.0	0.736	0.0	0.0	0.0	5094.3	1250.7	0.0	1004.2	2853.5
135.50	4.000	4.000	2.066	1.934	1.007	2.985	0.0	0.746	0.0	0.0	0.0	5113.2	1250.8	0.0	1008.9	2867.5
136.00	4.000	4.000	2.066	1.934	1.007	2.997	0.0	0.749	0.0	0.0	0.0	5132.1	1250.8	0.0	1013.7	2881.6
136.50	4.000	4.000	2.066	1.934	1.007	2.997	0.0	0.749	0.0	0.0	0.0	5150.9	1250.8	0.0	1018.4	2895.8
137.00	4.000	4.000	2.066	1.934	1.008	2.997	0.0	0.749	0.0	0.0	0.0	5169.8	1250.7	0.0	1023.2	2909.9
137.50	4.000	4.000	2.066	1.934	1.008	2.997	0.0	0.749	0.0	0.0	0.0	5188.7	1250.7	0.0	1027.9	2924.0
138.00	4.000	4.000	2.066	1.934	1.008	2.997	0.0	0.749	0.0	0.0	0.0	5207.5	1250.7	0.0	1032.7	2938.2
138.50	4.000	4.000	2.066	1.934	1.008	2.997	0.0	0.749	0.0	0.0	0.0	5226.4	1250.7	0.0	1037.5	2952.3
139.00	4.000	4.000	2.066	1.934	1.008	2.997	0.0	0.749	0.0	0.0	0.0	5245.3	1250.7	0.0	1042.2	2966.5
139.50	4.000	4.000	2.066	1.934	1.008	2.997	0.0	0.749	0.0	0.0	0.0	5264.2	1250.6	0.0	1047.0	2980.6
140.00	4.000	4.000	2.066	1.934	1.008	2.997	0.0	0.749	0.0	0.0	0.0	5283.0	1250.6	0.0	1051.7	2994.7
140.50	4.000	4.000	2.066	1.934	1.008	2.997	0.0	0.749	0.0	0.0	0.0	5301.9	1250.6	0.0	1056.5	3008.9
141.00	4.000	4.000	2.066	1.934	1.009	2.998	0.0	0.749	0.0	0.0	0.0	5320.8	1250.5	0.0	1061.2	3023.0
141.50	4.000	4.000	2.066	1.934	1.009	2.998	0.0	0.749	0.0	0.0	0.0	5339.6	1250.5	0.0	1066.0	3037.2
142.00	4.000	4.000	2.066	1.934	1.009	2.998	0.0	0.749	0.0	0.0	0.0	5358.5	1250.5	0.0	1070.7	3051.3
142.50	4.000	4.000	2.066	1.934	1.009	2.998	0.0	0.750	0.0	0.0	0.0	5377.4	1250.5	0.0	1075.5	3065.4
143.00	4.000	4.000	2.066	1.934	1.009	2.999	0.0	0.750	0.0	0.0	0.0	5396.2	1250.4	0.0	1080.3	3079.6
143.50	4.000	4.000	2.066	1.934	1.009	3.000	0.0	0.750	0.0	0.0	0.0	5415.1	1250.4	0.0	1085.0	3093.7
144.00	4.000	4.000	2.066	1.934	1.025	3.202	0.0	0.801	0.0	0.0	0.0	5434.0	1249.9	0.0	1089.8	3108.3
144.50	4.000	4.000	2.066	1.934	1.007	3.062	0.0	0.765	0.0	0.0	0.0	5452.8	1249.2	0.0	1094.6	3123.0
145.00	4.000	4.000	2.066	1.934	1.008	2.931	0.0	0.733	0.0	0.0	0.0	5471.7	1249.3	0.0	1099.4	3137.1
145.50	4.000	4.000	2.066	1.934	1.010	2.953	0.0	0.738	0.0	0.0	0.0	5490.6	1249.5	0.0	1104.1	3150.9
146.00	4.000	4.000	2.066	1.934	1.011	2.988	0.0	0.747	0.0	0.0	0.0	5509.4	1249.6	0.0	1108.9	3165.0
146.50	4.000	4.000	2.066	1.934	1.011	2.990	0.0	0.747	0.0	0.0	0.0	5528.3	1249.6	0.0	1113.7	3179.1
147.00	4.000	4.000	2.066	1.934	1.011	2.991	0.0	0.748	0.0	0.0	0.0	5547.2	1249.6	0.0	1118.4	3193.2
147.50	4.000	4.000	2.066	1.934	1.011	2.991	0.0	0.748	0.0	0.0	0.0	5566.0	1249.6	0.0	1123.2	3207.3
148.00	4.000	4.000	2.066	1.934	1.011	2.992	0.0	0.748	0.0	0.0	0.0	5584.9	1249.6	0.0	1128.0	3221.4
148.50	4.000	4.000	2.066	1.934	1.012	2.992	0.0	0.748	0.0	0.0	0.0	5603.8	1249.5	0.0	1132.7	3235.5
149.00	4.000	4.000	2.066	1.934	1.012	2.993	0.0	0.748	0.0	0.0	0.0	5622.6	1249.5	0.0	1137.5	3249.7
149.50	4.000	4.000	2.066	1.934	1.012	2.993	0.0	0.748	0.0	0.0	0.0	5641.5	1249.5	0.0	1142.3	3263.8

*** TIME = 150.00 (SEC) **** INLET AND OUTLET CONDITION ****

TQN2(C)	ZB2(M)	TQN5(C)	ZB5(M)	DD(IB4)(MM)	DD(N1)(MM)	DP(M)	CRATIO
696.57	1.6530	0.0	3.6400	1.1438	1.9461	1.4308	0.74827

P, RL, RGST 2.0000D+04 7.4225D-06 8.7246D-09

I	IP	AG(I)	PC(I)	HT(I)	HR(I)	HCV(I)	UG(I)	UL(I)	TW(I)	TL/TG(I)	G(I)
1	1	0.0	2.000D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	100.0	1.069D-03
2	1	0.0	1.996D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.0	1.069D-03
3	1	0.0	1.992D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.9	1.069D-03
4	1	0.0	1.989D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	102.9	1.069D-03
5	1	0.0	1.985D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	103.8	1.069D-03
6	1	0.0	1.981D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	104.8	1.069D-03
7	1	0.0	1.977D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	105.8	1.069D-03
8	1	0.0	1.974D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	106.7	1.069D-03
9	1	0.0	1.970D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	107.7	1.069D-03
10	1	0.0	1.966D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	108.6	1.069D-03
11	1	0.0	1.962D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	109.6	1.069D-03
12	1	0.0	1.958D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	110.6	1.069D-03
13	1	0.0	1.955D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	111.5	1.069D-03
14	1	0.0	1.951D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	112.5	1.069D-03
15	1	0.0	1.947D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	114.4	1.069D-03
16	1	0.0	1.943D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	116.2	1.069D-03
17	1	0.0	1.940D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	118.1	1.069D-03
18	3	0.0119	1.936D+04	2564.	0.0	6.368D+06	1408.	145.7	130.0	120.0	1.069D-03
19	3	0.1161	1.932D+04	2564.	0.0	6.368D+06	3907.	162.3	130.0	119.6	1.069D-03
20	3	0.1818	1.929D+04	2564.	0.0	6.368D+06	4896.	174.7	130.0	119.6	1.069D-03
21	3	0.2205	1.926D+04	2564.	0.0	6.368D+06	6017.	182.7	130.0	119.6	1.069D-03
22	3	0.2529	1.923D+04	2564.	0.0	6.368D+06	6973.	190.0	130.0	119.6	1.069D-03
23	3	0.2812	1.920D+04	2564.	0.0	6.368D+06	7824.	196.7	130.0	119.6	1.069D-03
24	3	0.3066	1.917D+04	2564.	0.0	6.368D+06	8598.	203.2	130.0	119.6	1.069D-03
25	3	0.3299	1.915D+04	3411.	0.0	9.317D+06	9315.	209.5	131.1	119.6	1.069D-03
26	3	0.3610	1.912D+04	3411.	0.0	9.317D+06	1.028D+04	218.5	131.1	119.6	1.069D-03
27	3	0.3893	1.910D+04	3411.	0.0	9.317D+06	1.118D+04	227.4	131.1	119.6	1.069D-03
28	3	0.4155	1.907D+04	3411.	0.0	9.317D+06	1.201D+04	236.3	131.1	119.6	1.069D-03
29	3	0.4400	1.905D+04	3411.	0.0	9.317D+06	1.279D+04	245.3	131.1	119.6	1.069D-03
30	3	0.4629	1.903D+04	3411.	0.0	9.317D+06	1.354D+04	254.4	131.1	119.6	1.069D-03
31	3	0.4847	1.901D+04	3411.	0.0	9.317D+06	1.425D+04	263.7	131.1	119.6	1.069D-03
32	3	0.5054	1.899D+04	3411.	0.0	9.317D+06	1.493D+04	273.2	131.1	119.6	1.069D-03
33	3	0.5251	1.897D+04	3411.	0.0	9.317D+06	1.559D+04	283.0	131.1	119.6	1.069D-03
34	3	0.5441	1.895D+04	3411.	0.0	9.317D+06	1.622D+04	293.1	131.1	119.6	1.069D-03
35	3	0.5622	1.894D+04	3411.	0.0	9.317D+06	1.683D+04	303.5	131.1	119.6	1.069D-03
36	3	0.5798	1.892D+04	4391.	0.0	1.305D+07	1.742D+04	314.4	132.1	119.6	1.069D-03
37	3	0.6033	1.890D+04	4391.	0.0	1.305D+07	1.822D+04	330.4	132.1	119.6	1.069D-03
38	3	0.6258	1.889D+04	4391.	0.0	1.305D+07	1.900D+04	347.5	132.1	119.6	1.069D-03
39	3	0.6474	1.887D+04	4391.	0.0	1.305D+07	1.975D+04	365.7	132.1	119.6	1.069D-03
40	3	0.6681	1.886D+04	4391.	0.0	1.305D+07	2.048D+04	385.4	132.1	119.6	1.069D-03
41	3	0.6880	1.885D+04	4391.	0.0	1.305D+07	2.118D+04	406.6	132.1	119.6	1.069D-03
42	3	0.7072	1.883D+04	4391.	0.0	1.305D+07	2.187D+04	429.7	132.1	119.6	1.069D-03
43	5	0.7263	1.882D+04	86.45	6.456D+06	5.395D+06	2.405D+04	451.1	694.8	119.6	1.069D-03
44	5	0.7962	1.880D+04	86.99	6.374D+06	5.489D+06	2.310D+04	604.1	691.7	130.1	1.070D-03
45	5	0.8205	1.878D+04	87.77	6.288D+06	5.614D+06	2.368D+04	681.8	688.6	138.9	1.070D-03
46	5	0.8472	1.877D+04	88.66	6.204D+06	5.753D+06	2.409D+04	795.5	685.4	143.9	1.070D-03
47	5	0.8724	1.876D+04	89.55	6.122D+06	5.888D+06	2.459D+04	946.2	682.4	149.7	1.070D-03
48	5	0.8952	1.875D+04	90.41	6.046D+06	6.018D+06	2.524D+04	1144.	679.4	157.1	1.070D-03
49	5	0.9149	1.874D+04	91.24	5.976D+06	6.140D+06	2.609D+04	1400.	676.7	166.8	1.070D-03
50	5	0.9311	1.873D+04	92.12	5.939D+06	6.262D+06	2.719D+04	1717.	675.3	179.3	1.070D-03

51	5	0.9439	1.873D+04	89.43	5.553D+06	6.527D+06	2.858D+04	2094.	686.3	194.8	1.070D-03
52	5	0.9533	1.872D+04	83.62	4.794D+06	6.880D+06	3.034D+04	2503.	705.3	215.4	1.070D-03
53	5	0.9601	1.872D+04	79.02	4.176D+06	7.170D+06	3.247D+04	2911.	722.0	241.1	1.070D-03
54	5	0.9651	1.871D+04	75.28	3.678D+06	7.394D+06	3.482D+04	3307.	736.7	269.6	1.070D-03
55	5	0.9688	1.871D+04	72.09	3.276D+06	7.549D+06	3.731D+04	3687.	749.6	299.8	1.070D-03
56	5	0.9717	1.871D+04	58.74	1.791D+06	5.534D+06	3.990D+04	4047.	642.8	331.0	1.070D-03
57	5	0.9736	1.871D+04	59.10	1.663D+06	5.627D+06	3.945D+04	4329.	637.1	317.7	1.070D-03
58	5	0.9752	1.870D+04	58.46	1.562D+06	5.667D+06	4.008D+04	4593.	638.5	321.3	1.070D-03
59	5	0.9766	1.870D+04	57.32	1.474D+06	5.666D+06	4.123D+04	4845.	642.3	332.6	1.070D-03
60	5	0.9778	1.870D+04	55.94	1.397D+06	5.636D+06	4.262D+04	5088.	647.0	347.4	1.070D-03
61	5	0.9788	1.870D+04	54.44	1.328D+06	5.583D+06	4.412D+04	5322.	652.2	363.7	1.070D-03
62	5	0.9797	1.869D+04	52.88	1.267D+06	5.514D+06	4.567D+04	5548.	657.6	380.7	1.070D-03
63	5	0.9805	1.869D+04	51.29	1.214D+06	5.430D+06	4.724D+04	5767.	663.0	397.7	1.070D-03
64	5	0.9813	1.869D+04	49.69	1.167D+06	5.335D+06	4.881D+04	5979.	668.5	414.7	1.070D-03
65	5	0.9819	1.869D+04	48.09	1.125D+06	5.230D+06	5.037D+04	6185.	673.9	431.5	1.070D-03
66	5	0.9825	1.869D+04	46.50	1.088D+06	5.117D+06	5.190D+04	6384.	679.3	447.9	1.070D-03
67	5	0.9831	1.868D+04	44.93	1.055D+06	4.997D+06	5.342D+04	6577.	684.6	463.9	1.070D-03
68	5	0.9836	1.868D+04	24.66	5.847D+05	2.053D+06	5.490D+04	6764.	568.0	479.4	1.070D-03
69	5	0.9840	1.868D+04	31.32	5.211D+05	2.566D+06	5.043D+04	6925.	532.8	414.2	1.070D-03
70	5	0.9844	1.868D+04	35.81	4.980D+05	2.912D+06	4.812D+04	7079.	518.9	379.2	1.070D-03
71	5	0.9847	1.868D+04	37.76	4.853D+05	3.068D+06	4.732D+04	7228.	514.2	365.1	1.070D-03
72	5	0.9850	1.868D+04	38.24	4.753D+05	3.116D+06	4.732D+04	7373.	513.4	362.0	1.070D-03
73	5	0.9853	1.868D+04	37.98	4.658D+05	3.107D+06	4.772D+04	7514.	514.1	364.2	1.070D-03
74	5	0.9856	1.867D+04	37.38	4.568D+05	3.072D+06	4.828D+04	7653.	515.5	368.7	1.070D-03
75	5	0.9859	1.867D+04	36.64	4.481D+05	3.024D+06	4.890D+04	7790.	517.0	374.0	1.070D-03
76	5	0.9862	1.867D+04	35.85	4.400D+05	2.972D+06	4.955D+04	7925.	518.7	379.7	1.070D-03
77	5	0.9864	1.867D+04	35.14	4.326D+05	2.927D+06	5.017D+04	8058.	520.4	384.9	1.070D-03
78	5	0.9867	1.867D+04	9.259	2.179D+05	4.228D+05	5.075D+04	8189.	408.8	389.5	1.070D-03
79	5	0.9869	1.867D+04	20.78	1.845D+05	1.058D+06	4.538D+04	8307.	370.1	317.1	1.070D-03
80	5	0.9870	1.867D+04	29.87	1.787D+05	1.523D+06	4.252D+04	8415.	358.3	277.9	1.070D-03
81	5	0.9872	1.867D+04	32.80	1.788D+05	1.683D+06	4.186D+04	8514.	357.6	267.5	1.070D-03
82	5	0.9874	1.866D+04	32.43	1.780D+05	1.675D+06	4.219D+04	8609.	359.2	270.2	1.070D-03
83	5	0.9875	1.866D+04	31.34	1.766D+05	1.628D+06	4.273D+04	8704.	361.0	275.4	1.070D-03
84	5	0.9877	1.866D+04	30.18	1.749D+05	1.574D+06	4.327D+04	8799.	362.7	280.7	1.070D-03
85	5	0.9878	1.866D+04	28.96	1.728D+05	1.514D+06	4.382D+04	8894.	364.0	285.9	1.070D-03
86	5	0.9880	1.866D+04	27.71	1.705D+05	1.450D+06	4.434D+04	8989.	364.9	290.9	1.070D-03
87	5	0.9881	1.866D+04	26.80	1.682D+05	1.403D+06	4.475D+04	9085.	365.4	294.3	1.070D-03
88	5	0.9882	1.865D+04	26.91	1.671D+05	1.416D+06	4.492D+04	9179.	366.2	294.7	1.070D-03
89	5	0.9884	1.865D+04	26.78	1.661D+05	1.416D+06	4.516D+04	9273.	367.3	296.1	1.070D-03
90	5	0.9885	1.865D+04	26.35	1.651D+05	1.400D+06	4.550D+04	9366.	368.6	298.6	1.070D-03
91	5	0.9886	1.865D+04	25.75	1.641D+05	1.374D+06	4.589D+04	9459.	370.0	301.8	1.070D-03

NAME(1)= 150

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)	---->	<---	(KG/M**2) AT CORE FLOW			--->
150.00	4.000	4.000	2.066	1.934	1.012	2.993	0.0	0.748	0.0	0.0	0.0	5660.4	1249.5	0.0	1147.1	3277.9
150.50	4.000	4.000	2.066	1.934	1.012	2.993	0.0	0.748	0.0	0.0	0.0	5679.2	1249.5	0.0	1151.8	3292.0
151.00	4.000	4.000	2.066	1.934	1.012	2.993	0.0	0.748	0.0	0.0	0.0	5698.1	1249.4	0.0	1156.6	3306.1
151.50	4.000	4.000	2.066	1.934	1.012	2.993	0.0	0.748	0.0	0.0	0.0	5717.0	1249.4	0.0	1161.4	3320.2
152.00	4.000	4.000	2.066	1.934	1.012	2.994	0.0	0.748	0.0	0.0	0.0	5735.8	1249.4	0.0	1166.2	3334.4
152.50	4.000	4.000	2.066	1.934	1.013	2.994	0.0	0.748	0.0	0.0	0.0	5754.7	1249.3	0.0	1170.9	3348.5
153.00	4.000	4.000	2.066	1.934	1.013	2.994	0.0	0.748	0.0	0.0	0.0	5773.6	1249.3	0.0	1175.7	3362.6
153.50	4.000	4.000	2.066	1.934	1.013	2.994	0.0	0.748	0.0	0.0	0.0	5792.5	1249.3	0.0	1180.5	3376.7
154.00	4.000	4.000	2.066	1.934	1.013	2.994	0.0	0.748	0.0	0.0	0.0	5811.3	1249.3	0.0	1185.3	3390.8
154.50	4.000	4.000	2.066	1.934	1.013	2.994	0.0	0.748	0.0	0.0	0.0	5830.2	1249.2	0.0	1190.0	3405.0
155.00	4.000	4.000	2.066	1.934	1.013	2.994	0.0	0.748	0.0	0.0	0.0	5849.1	1249.2	0.0	1194.8	3419.1
155.50	4.000	4.000	2.066	1.934	1.013	2.993	0.0	0.748	0.0	0.0	0.0	5867.9	1249.2	0.0	1199.6	3433.2
156.00	4.000	4.000	2.066	1.934	1.013	2.993	0.0	0.748	0.0	0.0	0.0	5886.8	1249.1	0.0	1204.4	3447.3
156.50	4.000	4.000	2.066	1.934	1.013	2.993	0.0	0.748	0.0	0.0	0.0	5905.7	1249.1	0.0	1209.2	3461.4
157.00	4.000	4.000	2.066	1.934	1.013	2.993	0.0	0.748	0.0	0.0	0.0	5924.5	1249.1	0.0	1213.9	3475.6
157.50	4.000	4.000	2.066	1.934	1.014	2.993	0.0	0.748	0.0	0.0	0.0	5943.4	1249.0	0.0	1218.7	3489.7
158.00	4.000	4.000	2.066	1.934	1.014	2.993	0.0	0.748	0.0	0.0	0.0	5962.3	1249.0	0.0	1223.5	3503.8
158.50	4.000	4.000	2.066	1.934	1.014	2.993	0.0	0.748	0.0	0.0	0.0	5981.1	1249.0	0.0	1228.3	3517.9
159.00	4.000	4.000	2.066	1.934	1.014	2.993	0.0	0.748	0.0	0.0	0.0	6000.0	1248.9	0.0	1233.1	3532.0
159.50	4.000	4.000	2.066	1.934	1.014	2.993	0.0	0.748	0.0	0.0	0.0	6018.9	1248.9	0.0	1237.8	3546.2
160.00	4.000	4.000	2.066	1.934	1.014	2.993	0.0	0.748	0.0	0.0	0.0	6037.7	1248.9	0.0	1242.6	3560.3
160.50	4.000	4.000	2.066	1.934	1.014	2.993	0.0	0.748	0.0	0.0	0.0	6056.6	1248.8	0.0	1247.4	3574.4
161.00	4.000	4.000	2.066	1.934	1.014	2.993	0.0	0.748	0.0	0.0	0.0	6075.5	1248.8	0.0	1252.2	3588.5
161.50	4.000	4.000	2.066	1.934	1.014	2.994	0.0	0.748	0.0	0.0	0.0	6094.3	1248.8	0.0	1257.0	3602.6
162.00	4.000	4.000	2.066	1.934	1.015	2.994	0.0	0.749	0.0	0.0	0.0	6113.2	1248.7	0.0	1261.8	3616.8
162.50	4.000	4.000	2.066	1.934	1.015	2.995	0.0	0.749	0.0	0.0	0.0	6132.1	1248.7	0.0	1266.5	3630.9
163.00	4.000	4.000	2.066	1.934	1.025	3.126	0.0	0.782	0.0	0.0	0.0	6150.9	1248.3	0.0	1271.4	3645.4
163.50	4.000	4.000	2.066	1.934	1.006	2.917	0.0	0.729	0.0	0.0	0.0	6169.8	1248.3	0.0	1276.1	3659.4
164.00	4.000	4.000	2.066	1.934	1.011	2.842	0.0	0.710	0.0	0.0	0.0	6188.7	1248.9	0.0	1280.9	3672.9
164.50	4.000	4.000	2.066	1.934	1.015	2.942	0.0	0.735	0.0	0.0	0.0	6207.5	1249.4	0.0	1285.7	3686.6
165.00	4.000	4.000	2.066	1.934	1.016	2.982	0.0	0.746	0.0	0.0	0.0	6226.4	1249.4	0.0	1290.5	3700.6
165.50	4.000	4.000	2.066	1.934	1.016	2.984	0.0	0.746	0.0	0.0	0.0	6245.3	1249.4	0.0	1295.2	3714.7
166.00	4.000	4.000	2.066	1.934	1.016	2.984	0.0	0.746	0.0	0.0	0.0	6264.2	1249.4	0.0	1300.0	3728.7
166.50	4.000	4.000	2.066	1.934	1.016	2.985	0.0	0.746	0.0	0.0	0.0	6283.0	1249.4	0.0	1304.8	3742.8
167.00	4.000	4.000	2.066	1.934	1.016	2.985	0.0	0.746	0.0	0.0	0.0	6301.9	1249.4	0.0	1309.6	3756.9
167.50	4.000	4.000	2.066	1.934	1.016	2.986	0.0	0.746	0.0	0.0	0.0	6320.8	1249.4	0.0	1314.4	3771.0
168.00	4.000	4.000	2.066	1.934	1.016	2.986	0.0	0.746	0.0	0.0	0.0	6339.6	1249.4	0.0	1319.2	3785.1
168.50	4.000	4.000	2.066	1.934	1.017	2.986	0.0	0.747	0.0	0.0	0.0	6358.5	1249.4	0.0	1324.0	3799.1
169.00	4.000	4.000	2.066	1.934	1.017	2.986	0.0	0.747	0.0	0.0	0.0	6377.4	1249.4	0.0	1328.8	3813.2
169.50	4.000	4.000	2.066	1.934	1.017	2.987	0.0	0.747	0.0	0.0	0.0	6396.2	1249.3	0.0	1333.6	3827.3
170.00	4.000	4.000	2.066	1.934	1.017	2.987	0.0	0.747	0.0	0.0	0.0	6415.1	1249.3	0.0	1338.4	3841.4
170.50	4.000	4.000	2.066	1.934	1.017	2.987	0.0	0.747	0.0	0.0	0.0	6434.0	1249.3	0.0	1343.2	3855.5
171.00	4.000	4.000	2.066	1.934	1.017	2.987	0.0	0.747	0.0	0.0	0.0	6452.8	1249.3	0.0	1348.0	3869.6
171.50	4.000	4.000	2.066	1.934	1.017	2.987	0.0	0.747	0.0	0.0	0.0	6471.7	1249.3	0.0	1352.8	3883.7
172.00	4.000	4.000	2.066	1.934	1.017	2.987	0.0	0.747	0.0	0.0	0.0	6490.6	1249.2	0.0	1357.6	3897.8
172.50	4.000	4.000	2.066	1.934	1.017	2.987	0.0	0.747	0.0	0.0	0.0	6509.4	1249.2	0.0	1362.4	3911.9
173.00	4.000	4.000	2.066	1.934	1.017	2.987	0.0	0.747	0.0	0.0	0.0	6528.3	1249.2	0.0	1367.2	3926.0
173.50	4.000	4.000	2.066	1.934	1.017	2.987	0.0	0.747	0.0	0.0	0.0	6547.2	1249.2	0.0	1372.0	3940.0
174.00	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6566.0	1249.2	0.0	1376.8	3954.1
174.50	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6584.9	1249.1	0.0	1381.6	3968.2

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)	---->	<---	(KG/M**2) AT CORE FLOW --->			
175.00	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6603.8	1249.1	0.0	1386.4	3982.3
175.50	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6622.6	1249.1	0.0	1391.2	3996.4
176.00	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6641.5	1249.1	0.0	1396.0	4010.5
176.50	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6660.4	1249.0	0.0	1400.8	4024.6
177.00	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6679.2	1249.0	0.0	1405.6	4038.7
177.50	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6698.1	1249.0	0.0	1410.4	4052.8
178.00	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6717.0	1249.0	0.0	1415.2	4066.9
178.50	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6735.8	1248.9	0.0	1420.0	4080.9
179.00	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6754.7	1248.9	0.0	1424.8	4095.0
179.50	4.000	4.000	2.066	1.934	1.018	2.987	0.0	0.747	0.0	0.0	0.0	6773.6	1248.9	0.0	1429.6	4109.1
180.00	4.000	4.000	2.066	1.934	1.018	2.988	0.0	0.747	0.0	0.0	0.0	6792.5	1248.9	0.0	1434.4	4123.2
180.50	4.000	4.000	2.066	1.934	1.019	2.988	0.0	0.747	0.0	0.0	0.0	6811.3	1248.8	0.0	1439.2	4137.3
181.00	4.000	4.000	2.066	1.934	1.019	2.988	0.0	0.747	0.0	0.0	0.0	6830.2	1248.8	0.0	1444.0	4151.4
181.50	4.000	4.000	2.066	1.934	1.019	2.989	0.0	0.747	0.0	0.0	0.0	6849.1	1248.8	0.0	1448.8	4165.5
182.00	4.000	4.000	2.066	1.934	0.696	0.0	0.0	0.0	0.0	0.0	0.0	6867.9	1203.3	0.0	1453.3	4176.8
182.50	4.000	4.000	2.066	1.934	0.707	0.0	0.0	0.0	0.0	0.0	0.0	6886.8	1219.0	0.0	1456.6	4176.8
183.00	4.000	4.000	2.066	1.934	0.839	0.0	0.0	0.0	0.0	0.0	0.0	6905.7	1234.0	0.0	1460.4	4176.8
183.50	4.000	4.000	2.066	1.934	0.988	0.857	0.0	0.214	0.0	0.0	0.0	6924.5	1247.1	0.0	1464.9	4178.1
184.00	4.000	4.000	2.066	1.934	1.019	2.863	0.0	0.716	0.0	0.0	0.0	6943.4	1250.3	0.0	1469.6	4189.0
184.50	4.000	4.000	2.066	1.934	1.020	2.978	0.0	0.745	0.0	0.0	0.0	6962.3	1250.4	0.0	1474.5	4203.0
185.00	4.000	4.000	2.066	1.934	1.020	2.979	0.0	0.745	0.0	0.0	0.0	6981.1	1250.4	0.0	1479.3	4217.0
185.50	4.000	4.000	2.066	1.934	1.021	2.980	0.0	0.745	0.0	0.0	0.0	7000.0	1250.4	0.0	1484.1	4231.1
186.00	4.000	4.000	2.066	1.934	1.021	2.980	0.0	0.745	0.0	0.0	0.0	7018.9	1250.4	0.0	1488.9	4245.1
186.50	4.000	4.000	2.066	1.934	1.021	2.980	0.0	0.745	0.0	0.0	0.0	7037.7	1250.4	0.0	1493.7	4259.2
187.00	4.000	4.000	2.066	1.934	1.021	2.981	0.0	0.745	0.0	0.0	0.0	7056.6	1250.4	0.0	1498.5	4273.2
187.50	4.000	4.000	2.066	1.934	1.021	2.981	0.0	0.745	0.0	0.0	0.0	7075.5	1250.4	0.0	1503.3	4287.3
188.00	4.000	4.000	2.066	1.934	1.021	2.981	0.0	0.745	0.0	0.0	0.0	7094.3	1250.3	0.0	1508.2	4301.4
188.50	4.000	4.000	2.066	1.934	1.021	2.981	0.0	0.745	0.0	0.0	0.0	7113.2	1250.3	0.0	1513.0	4315.4
189.00	4.000	4.000	2.066	1.934	1.021	2.982	0.0	0.745	0.0	0.0	0.0	7132.1	1250.3	0.0	1517.8	4329.5
189.50	4.000	4.000	2.066	1.934	1.021	2.982	0.0	0.745	0.0	0.0	0.0	7150.9	1250.3	0.0	1522.6	4343.6
190.00	4.000	4.000	2.066	1.934	1.021	2.982	0.0	0.745	0.0	0.0	0.0	7169.8	1250.3	0.0	1527.4	4357.6
190.50	4.000	4.000	2.066	1.934	1.021	2.982	0.0	0.745	0.0	0.0	0.0	7188.7	1250.3	0.0	1532.2	4371.7
191.00	4.000	4.000	2.066	1.934	1.021	2.982	0.0	0.745	0.0	0.0	0.0	7207.5	1250.3	0.0	1537.1	4385.7
191.50	4.000	4.000	2.066	1.934	1.021	2.982	0.0	0.746	0.0	0.0	0.0	7226.4	1250.2	0.0	1541.9	4399.8
192.00	4.000	4.000	2.066	1.934	1.021	2.982	0.0	0.746	0.0	0.0	0.0	7245.3	1250.2	0.0	1546.7	4413.9
192.50	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7264.2	1250.2	0.0	1551.5	4427.9
193.00	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7283.0	1250.2	0.0	1556.3	4442.0
193.50	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7301.9	1250.2	0.0	1561.2	4456.1
194.00	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7320.8	1250.2	0.0	1566.0	4470.1
194.50	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7339.6	1250.1	0.0	1570.8	4484.2
195.00	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7358.5	1250.1	0.0	1575.6	4498.3
195.50	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7377.4	1250.1	0.0	1580.4	4512.3
196.00	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7396.2	1250.1	0.0	1585.3	4526.4
196.50	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7415.1	1250.1	0.0	1590.1	4540.5
197.00	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7434.0	1250.0	0.0	1594.9	4554.6
197.50	4.000	4.000	2.066	1.934	1.022	2.982	0.0	0.746	0.0	0.0	0.0	7452.8	1250.0	0.0	1599.7	4568.6
198.00	4.000	4.000	2.066	1.934	1.022	2.983	0.0	0.746	0.0	0.0	0.0	7471.7	1250.0	0.0	1604.5	4582.7
198.50	4.000	4.000	2.066	1.934	1.022	2.983	0.0	0.746	0.0	0.0	0.0	7490.6	1250.0	0.0	1609.4	4596.8
199.00	4.000	4.000	2.066	1.934	1.022	2.983	0.0	0.746	0.0	0.0	0.0	7509.4	1249.9	0.0	1614.2	4610.8
199.50	4.000	4.000	2.066	1.934	1.022	2.983	0.0	0.746	0.0	0.0	0.0	7528.3	1249.9	0.0	1619.0	4624.9

*** TIME = 200.00 (SEC) **** INLET AND OUTLET CONDITION ****

TQN2(C)	ZB2(M)	TQN5(C)	ZB5(M)	DD(IB4)(MM)	DD(N1)(MM)	DP(M)	CRATIO
702.93	1.7576	0.0	3.6400	1.0875	2.0489	1.4151	0.74592

P, RL, RGST 2.0000D+04 7.4225D-06 8.7246D-09

I	IP	AG(I)	PC(I)	HT(I)	HR(I)	HCV(I)	UG(I)	UL(I)	TW(I)	TL/TG(I)	G(I)
1	1	0.0	2.000D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	100.0	1.069D-03
2	1	0.0	1.996D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.0	1.069D-03
3	1	0.0	1.992D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.9	1.069D-03
4	1	0.0	1.989D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	102.9	1.069D-03
5	1	0.0	1.985D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	103.8	1.069D-03
6	1	0.0	1.981D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	104.8	1.069D-03
7	1	0.0	1.977D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	105.8	1.069D-03
8	1	0.0	1.974D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	106.7	1.069D-03
9	1	0.0	1.970D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	107.7	1.069D-03
10	1	0.0	1.966D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	108.6	1.069D-03
11	1	0.0	1.962D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	109.6	1.069D-03
12	1	0.0	1.958D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	110.6	1.069D-03
13	1	0.0	1.955D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	111.5	1.069D-03
14	1	0.0	1.951D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	112.5	1.069D-03
15	1	0.0	1.947D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	114.4	1.069D-03
16	1	0.0	1.943D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	116.2	1.069D-03
17	1	0.0	1.940D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	118.1	1.069D-03
18	3	0.0119	1.936D+04	2564.	0.0	6.368D+06	1408.	145.7	130.0	120.0	1.069D-03
19	3	0.1161	1.932D+04	2564.	0.0	6.368D+06	3907.	162.3	130.0	119.6	1.069D-03
20	3	0.1818	1.929D+04	2564.	0.0	6.368D+06	4896.	174.7	130.0	119.6	1.069D-03
21	3	0.2205	1.926D+04	2564.	0.0	6.368D+06	6017.	182.7	130.0	119.6	1.069D-03
22	3	0.2529	1.923D+04	2564.	0.0	6.368D+06	6973.	190.0	130.0	119.6	1.069D-03
23	3	0.2812	1.920D+04	2564.	0.0	6.368D+06	7824.	196.7	130.0	119.6	1.069D-03
24	3	0.3066	1.917D+04	2564.	0.0	6.368D+06	8598.	203.2	130.0	119.6	1.069D-03
25	3	0.3299	1.915D+04	3411.	0.0	9.317D+06	9315.	209.5	131.1	119.6	1.069D-03
26	3	0.3610	1.912D+04	3411.	0.0	9.317D+06	1.028D+04	218.5	131.1	119.6	1.069D-03
27	3	0.3893	1.910D+04	3411.	0.0	9.317D+06	1.118D+04	227.4	131.1	119.6	1.069D-03
28	3	0.4155	1.907D+04	3411.	0.0	9.317D+06	1.201D+04	236.3	131.1	119.6	1.069D-03
29	3	0.4400	1.905D+04	3411.	0.0	9.317D+06	1.279D+04	245.3	131.1	119.6	1.069D-03
30	3	0.4629	1.903D+04	3411.	0.0	9.317D+06	1.354D+04	254.4	131.1	119.6	1.069D-03
31	3	0.4847	1.901D+04	3411.	0.0	9.317D+06	1.425D+04	263.7	131.1	119.6	1.069D-03
32	3	0.5054	1.899D+04	3411.	0.0	9.317D+06	1.493D+04	273.2	131.1	119.6	1.069D-03
33	3	0.5251	1.897D+04	3411.	0.0	9.317D+06	1.559D+04	283.0	131.1	119.6	1.069D-03
34	3	0.5441	1.895D+04	3411.	0.0	9.317D+06	1.622D+04	293.1	131.1	119.6	1.069D-03
35	3	0.5622	1.894D+04	3411.	0.0	9.317D+06	1.683D+04	303.5	131.1	119.6	1.069D-03
36	3	0.5798	1.892D+04	4391.	0.0	1.305D+07	1.742D+04	314.4	132.1	119.6	1.069D-03
37	3	0.6033	1.890D+04	4391.	0.0	1.305D+07	1.822D+04	330.4	132.1	119.6	1.069D-03
38	3	0.6258	1.889D+04	4391.	0.0	1.305D+07	1.900D+04	347.5	132.1	119.6	1.069D-03
39	3	0.6474	1.887D+04	4391.	0.0	1.305D+07	1.975D+04	365.7	132.1	119.6	1.069D-03
40	3	0.6681	1.886D+04	4391.	0.0	1.305D+07	2.048D+04	385.4	132.1	119.6	1.069D-03
41	3	0.6880	1.885D+04	4391.	0.0	1.305D+07	2.118D+04	406.6	132.1	119.6	1.069D-03
42	3	0.7072	1.883D+04	4391.	0.0	1.305D+07	2.187D+04	429.7	132.1	119.6	1.069D-03
43	3	0.7258	1.882D+04	4391.	0.0	1.305D+07	2.255D+04	455.0	132.1	119.6	1.069D-03
44	3	0.7437	1.881D+04	4391.	0.0	1.305D+07	2.321D+04	482.7	132.1	119.6	1.069D-03
45	5	0.7778	1.880D+04	90.58	6.677D+06	5.912D+06	2.475D+04	546.2	702.7	119.6	1.069D-03
46	5	0.8649	1.878D+04	91.11	6.585D+06	6.007D+06	2.339D+04	896.5	699.4	129.9	1.071D-03
47	5	0.8840	1.877D+04	91.79	6.490D+06	6.119D+06	2.432D+04	1039.	696.0	143.4	1.071D-03
48	5	0.9041	1.876D+04	92.56	6.402D+06	6.243D+06	2.509D+04	1249.	692.8	152.7	1.071D-03
49	5	0.9218	1.875D+04	93.32	6.316D+06	6.361D+06	2.600D+04	1522.	689.6	163.0	1.071D-03
50	5	0.9364	1.875D+04	94.10	6.254D+06	6.478D+06	2.711D+04	1859.	687.3	175.1	1.071D-03

51	5	0.9479	1.874D+04	89.38	5.620D+06	6.827D+06	2.844D+04	2252.	703.9	189.6	1.071D-03
52	5	0.9562	1.874D+04	84.63	5.003D+06	7.260D+06	3.014D+04	2662.	727.6	209.0	1.071D-03
53	5	0.9623	1.873D+04	80.77	4.462D+06	7.636D+06	3.216D+04	3074.	748.1	232.9	1.071D-03
54	5	0.9668	1.873D+04	77.59	4.002D+06	7.952D+06	3.441D+04	3477.	766.0	259.7	1.071D-03
55	5	0.9703	1.873D+04	74.87	3.615D+06	8.204D+06	3.685D+04	3865.	782.0	288.8	1.071D-03
56	5	0.9730	1.872D+04	62.71	2.037D+06	6.311D+06	3.942D+04	4235.	678.2	319.6	1.071D-03
57	5	0.9748	1.872D+04	62.59	1.892D+06	6.373D+06	3.929D+04	4521.	673.7	311.1	1.071D-03
58	5	0.9763	1.872D+04	61.73	1.778D+06	6.412D+06	4.019D+04	4790.	676.3	318.5	1.070D-03
59	5	0.9776	1.872D+04	60.53	1.681D+06	6.427D+06	4.157D+04	5047.	681.7	332.9	1.070D-03
60	5	0.9787	1.871D+04	59.14	1.597D+06	6.419D+06	4.318D+04	5295.	688.3	350.7	1.070D-03
61	5	0.9796	1.871D+04	57.65	1.523D+06	6.389D+06	4.492D+04	5535.	695.5	370.2	1.070D-03
62	5	0.9805	1.871D+04	56.08	1.459D+06	6.339D+06	4.674D+04	5767.	703.0	390.6	1.070D-03
63	5	0.9813	1.871D+04	54.45	1.403D+06	6.270D+06	4.860D+04	5991.	710.8	411.5	1.070D-03
64	5	0.9820	1.870D+04	52.78	1.354D+06	6.183D+06	5.049D+04	6208.	718.7	432.7	1.070D-03
65	5	0.9826	1.870D+04	51.07	1.312D+06	6.079D+06	5.239D+04	6418.	726.8	453.8	1.070D-03
66	5	0.9832	1.870D+04	49.34	1.274D+06	5.961D+06	5.430D+04	6621.	734.8	474.8	1.070D-03
67	5	0.9837	1.870D+04	47.60	1.241D+06	5.831D+06	5.619D+04	6818.	742.9	495.6	1.070D-03
68	5	0.9842	1.870D+04	28.93	7.284D+05	2.804D+06	5.806D+04	7009.	631.8	516.0	1.070D-03
69	5	0.9846	1.870D+04	32.94	6.354D+05	3.071D+06	5.405D+04	7171.	591.6	457.3	1.070D-03
70	5	0.9849	1.869D+04	36.40	5.948D+05	3.336D+06	5.167D+04	7327.	572.5	421.4	1.070D-03
71	5	0.9853	1.869D+04	38.26	5.745D+05	3.489D+06	5.068D+04	7479.	565.1	404.6	1.070D-03
72	5	0.9856	1.869D+04	38.86	5.617D+05	3.550D+06	5.058D+04	7627.	563.4	399.9	1.070D-03
73	5	0.9859	1.869D+04	38.68	5.514D+05	3.551D+06	5.099D+04	7771.	564.5	402.0	1.070D-03
74	5	0.9861	1.869D+04	38.08	5.423D+05	3.517D+06	5.164D+04	7913.	566.7	407.5	1.070D-03
75	5	0.9864	1.869D+04	37.27	5.339D+05	3.464D+06	5.242D+04	8053.	569.4	414.5	1.070D-03
76	5	0.9867	1.868D+04	36.38	5.260D+05	3.401D+06	5.325D+04	8190.	572.4	422.2	1.070D-03
77	5	0.9869	1.868D+04	35.45	5.186D+05	3.334D+06	5.410D+04	8326.	575.4	430.1	1.070D-03
78	5	0.9871	1.868D+04	11.74	2.827D+05	6.926D+05	5.494D+04	8459.	467.7	437.9	1.070D-03
79	5	0.9873	1.868D+04	18.93	2.298D+05	1.124D+06	4.965D+04	8579.	419.3	366.9	1.070D-03
80	5	0.9875	1.868D+04	26.69	2.119D+05	1.560D+06	4.625D+04	8691.	397.9	320.8	1.070D-03
81	5	0.9877	1.868D+04	31.49	2.087D+05	1.837D+06	4.468D+04	8797.	392.0	298.8	1.070D-03
82	5	0.9878	1.868D+04	33.11	2.088D+05	1.946D+06	4.440D+04	8897.	392.5	293.2	1.070D-03
83	5	0.9880	1.868D+04	32.93	2.086D+05	1.952D+06	4.474D+04	8996.	394.8	295.8	1.070D-03
84	5	0.9881	1.868D+04	32.15	2.080D+05	1.922D+06	4.529D+04	9094.	397.4	300.9	1.070D-03
85	5	0.9882	1.867D+04	31.20	2.069D+05	1.878D+06	4.588D+04	9192.	399.9	306.6	1.070D-03
86	5	0.9884	1.867D+04	30.21	2.056D+05	1.829D+06	4.647D+04	9290.	402.1	312.2	1.070D-03
87	5	0.9885	1.867D+04	29.18	2.040D+05	1.775D+06	4.705D+04	9388.	404.1	317.6	1.070D-03
88	5	0.9886	1.867D+04	28.15	2.022D+05	1.718D+06	4.761D+04	9485.	405.8	322.9	1.070D-03
89	5	0.9888	1.867D+04	27.11	2.001D+05	1.659D+06	4.817D+04	9582.	407.2	328.0	1.070D-03
90	5	0.9889	1.867D+04	26.81	1.990D+05	1.649D+06	4.850D+04	9679.	408.6	330.3	1.070D-03
91	5	0.9890	1.867D+04	26.70	1.983D+05	1.652D+06	4.880D+04	9775.	410.2	332.2	1.070D-03

NAME(1)= 200

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)		---->	<---	(KG/M**2) AT CORE FLOW		--->
200.00	4.000	4.000	2.066	1.934	1.023	2.984	0.0	0.746	0.0	0.0	0.0	7547.2	1249.9	0.0	1623.8	4639.0
200.50	4.000	4.000	2.066	1.934	1.023	2.984	0.0	0.746	0.0	0.0	0.0	7566.0	1249.9	0.0	1628.7	4653.0
201.00	4.000	4.000	2.066	1.934	1.023	2.986	0.0	0.746	0.0	0.0	0.0	7584.9	1249.8	0.0	1633.5	4667.1
201.50	4.000	4.000	2.066	1.934	0.705	0.0	0.0	0.0	0.0	0.0	0.0	7603.8	1219.7	0.0	1637.1	4669.9
202.00	4.000	4.000	2.066	1.934	0.823	0.0	0.0	0.0	0.0	0.0	0.0	7622.6	1234.7	0.0	1640.9	4669.9
202.50	4.000	4.000	2.066	1.934	0.985	0.643	0.0	0.161	0.0	0.0	0.0	7641.5	1248.3	0.0	1645.3	4670.8
203.00	4.000	4.000	2.066	1.934	1.022	2.817	0.0	0.704	0.0	0.0	0.0	7660.4	1252.2	0.0	1650.1	4681.1
203.50	4.000	4.000	2.066	1.934	1.024	2.974	0.0	0.744	0.0	0.0	0.0	7679.2	1252.3	0.0	1654.9	4695.0
204.00	4.000	4.000	2.066	1.934	1.024	2.976	0.0	0.744	0.0	0.0	0.0	7698.1	1252.3	0.0	1659.8	4709.0
204.50	4.000	4.000	2.066	1.934	1.024	2.976	0.0	0.744	0.0	0.0	0.0	7717.0	1252.3	0.0	1664.6	4723.1
205.00	4.000	4.000	2.066	1.934	1.024	2.976	0.0	0.744	0.0	0.0	0.0	7735.8	1252.3	0.0	1669.4	4737.1
205.50	4.000	4.000	2.066	1.934	1.025	2.977	0.0	0.744	0.0	0.0	0.0	7754.7	1252.3	0.0	1674.3	4751.1
206.00	4.000	4.000	2.066	1.934	1.025	2.977	0.0	0.744	0.0	0.0	0.0	7773.6	1252.3	0.0	1679.1	4765.2
206.50	4.000	4.000	2.066	1.934	1.025	2.977	0.0	0.744	0.0	0.0	0.0	7792.5	1252.2	0.0	1683.9	4779.2
207.00	4.000	4.000	2.066	1.934	1.025	2.977	0.0	0.744	0.0	0.0	0.0	7811.3	1252.2	0.0	1688.8	4793.3
207.50	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.744	0.0	0.0	0.0	7830.2	1252.2	0.0	1693.6	4807.3
208.00	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.744	0.0	0.0	0.0	7849.1	1252.2	0.0	1698.4	4821.4
208.50	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.744	0.0	0.0	0.0	7867.9	1252.2	0.0	1703.3	4835.4
209.00	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.744	0.0	0.0	0.0	7886.8	1252.2	0.0	1708.1	4849.5
209.50	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.744	0.0	0.0	0.0	7905.7	1252.2	0.0	1712.9	4863.5
210.00	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.745	0.0	0.0	0.0	7924.5	1252.2	0.0	1717.8	4877.5
210.50	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.745	0.0	0.0	0.0	7943.4	1252.1	0.0	1722.6	4891.6
211.00	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.745	0.0	0.0	0.0	7962.3	1252.1	0.0	1727.4	4905.6
211.50	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.745	0.0	0.0	0.0	7981.1	1252.1	0.0	1732.3	4919.7
212.00	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.745	0.0	0.0	0.0	8000.0	1252.1	0.0	1737.1	4933.7
212.50	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.745	0.0	0.0	0.0	8018.9	1252.1	0.0	1741.9	4947.8
213.00	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.745	0.0	0.0	0.0	8037.7	1252.1	0.0	1746.8	4961.8
213.50	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.745	0.0	0.0	0.0	8056.6	1252.0	0.0	1751.6	4975.9
214.00	4.000	4.000	2.066	1.934	1.025	2.978	0.0	0.745	0.0	0.0	0.0	8075.5	1252.0	0.0	1756.5	4989.9
214.50	4.000	4.000	2.066	1.934	1.026	2.978	0.0	0.745	0.0	0.0	0.0	8094.3	1252.0	0.0	1761.3	5004.0
215.00	4.000	4.000	2.066	1.934	1.026	2.978	0.0	0.745	0.0	0.0	0.0	8113.2	1252.0	0.0	1766.1	5018.0
215.50	4.000	4.000	2.066	1.934	1.026	2.978	0.0	0.745	0.0	0.0	0.0	8132.1	1252.0	0.0	1771.0	5032.1
216.00	4.000	4.000	2.066	1.934	1.026	2.979	0.0	0.745	0.0	0.0	0.0	8150.9	1252.0	0.0	1775.8	5046.1
216.50	4.000	4.000	2.066	1.934	1.026	2.979	0.0	0.745	0.0	0.0	0.0	8169.8	1251.9	0.0	1780.6	5060.2
217.00	4.000	4.000	2.066	1.934	1.026	2.979	0.0	0.745	0.0	0.0	0.0	8188.7	1251.9	0.0	1785.5	5074.2
217.50	4.000	4.000	2.066	1.934	1.026	2.979	0.0	0.745	0.0	0.0	0.0	8207.5	1251.9	0.0	1790.3	5088.3
218.00	4.000	4.000	2.066	1.934	1.026	2.979	0.0	0.745	0.0	0.0	0.0	8226.4	1251.9	0.0	1795.2	5102.3
218.50	4.000	4.000	2.066	1.934	1.026	2.979	0.0	0.745	0.0	0.0	0.0	8245.3	1251.8	0.0	1800.0	5116.4
219.00	4.000	4.000	2.066	1.934	1.026	2.980	0.0	0.745	0.0	0.0	0.0	8264.2	1251.8	0.0	1804.8	5130.4
219.50	4.000	4.000	2.066	1.934	1.026	2.980	0.0	0.745	0.0	0.0	0.0	8283.0	1251.8	0.0	1809.7	5144.5
220.00	4.000	4.000	2.066	1.934	1.026	2.981	0.0	0.745	0.0	0.0	0.0	8301.9	1251.8	0.0	1814.5	5158.6
220.50	4.000	4.000	2.066	1.934	0.739	0.0	0.0	0.0	0.0	0.0	0.0	8320.8	1220.6	0.0	1818.8	5167.0
221.00	4.000	4.000	2.066	1.934	0.835	0.0	0.0	0.0	0.0	0.0	0.0	8339.6	1235.7	0.0	1822.6	5167.0
221.50	4.000	4.000	2.066	1.934	0.977	0.389	0.0	0.097	0.0	0.0	0.0	8358.5	1249.7	0.0	1826.9	5167.5
222.00	4.000	4.000	2.066	1.934	1.026	2.726	0.0	0.681	0.0	0.0	0.0	8377.4	1254.7	0.0	1831.7	5176.6
222.50	4.000	4.000	2.066	1.934	1.028	2.970	0.0	0.743	0.0	0.0	0.0	8396.2	1254.9	0.0	1836.5	5190.4
223.00	4.000	4.000	2.066	1.934	1.028	2.972	0.0	0.743	0.0	0.0	0.0	8415.1	1254.9	0.0	1841.4	5204.5
223.50	4.000	4.000	2.066	1.934	1.028	2.973	0.0	0.743	0.0	0.0	0.0	8434.0	1254.9	0.0	1846.2	5218.5
224.00	4.000	4.000	2.066	1.934	1.028	2.973	0.0	0.743	0.0	0.0	0.0	8452.8	1254.9	0.0	1851.1	5232.5
224.50	4.000	4.000	2.066	1.934	1.028	2.973	0.0	0.743	0.0	0.0	0.0	8471.7	1254.9	0.0	1855.9	5246.5

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)		---->	<---	(KG/M**2) AT CORE FLOW		--->
225.00	4.000	4.000	2.066	1.934	1.028	2.974	0.0	0.743	0.0	0.0	0.0	8490.6	1254.9	0.0	1860.8	5260.6
225.50	4.000	4.000	2.066	1.934	1.028	2.974	0.0	0.743	0.0	0.0	0.0	8509.4	1254.9	0.0	1865.6	5274.6
226.00	4.000	4.000	2.066	1.934	1.028	2.974	0.0	0.743	0.0	0.0	0.0	8528.3	1254.8	0.0	1870.5	5288.6
226.50	4.000	4.000	2.066	1.934	1.028	2.974	0.0	0.744	0.0	0.0	0.0	8547.2	1254.8	0.0	1875.3	5302.6
227.00	4.000	4.000	2.066	1.934	1.028	2.974	0.0	0.744	0.0	0.0	0.0	8566.0	1254.8	0.0	1880.2	5316.7
227.50	4.000	4.000	2.066	1.934	1.028	2.974	0.0	0.744	0.0	0.0	0.0	8584.9	1254.8	0.0	1885.0	5330.7
228.00	4.000	4.000	2.066	1.934	1.028	2.974	0.0	0.744	0.0	0.0	0.0	8603.8	1254.8	0.0	1889.9	5344.7
228.50	4.000	4.000	2.066	1.934	1.028	2.975	0.0	0.744	0.0	0.0	0.0	8622.6	1254.8	0.0	1894.7	5358.8
229.00	4.000	4.000	2.066	1.934	1.028	2.975	0.0	0.744	0.0	0.0	0.0	8641.5	1254.8	0.0	1899.6	5372.8
229.50	4.000	4.000	2.066	1.934	1.028	2.975	0.0	0.744	0.0	0.0	0.0	8660.4	1254.8	0.0	1904.4	5386.8
230.00	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8679.2	1254.7	0.0	1909.3	5400.9
230.50	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8698.1	1254.7	0.0	1914.1	5414.9
231.00	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8717.0	1254.7	0.0	1919.0	5428.9
231.50	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8735.8	1254.7	0.0	1923.8	5443.0
232.00	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8754.7	1254.7	0.0	1928.7	5457.0
232.50	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8773.6	1254.7	0.0	1933.5	5471.0
233.00	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8792.5	1254.6	0.0	1938.4	5485.1
233.50	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8811.3	1254.6	0.0	1943.2	5499.1
234.00	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8830.2	1254.6	0.0	1948.1	5513.1
234.50	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8849.1	1254.6	0.0	1952.9	5527.2
235.00	4.000	4.000	2.066	1.934	1.029	2.975	0.0	0.744	0.0	0.0	0.0	8867.9	1254.6	0.0	1957.8	5541.2
235.50	4.000	4.000	2.066	1.934	1.029	2.976	0.0	0.744	0.0	0.0	0.0	8886.8	1254.5	0.0	1962.7	5555.2
236.00	4.000	4.000	2.066	1.934	1.029	2.976	0.0	0.744	0.0	0.0	0.0	8905.7	1254.5	0.0	1967.5	5569.3
236.50	4.000	4.000	2.066	1.934	1.029	2.976	0.0	0.744	0.0	0.0	0.0	8924.5	1254.5	0.0	1972.4	5583.3
237.00	4.000	4.000	2.066	1.934	1.029	2.976	0.0	0.744	0.0	0.0	0.0	8943.4	1254.5	0.0	1977.2	5597.3
237.50	4.000	4.000	2.066	1.934	1.029	2.976	0.0	0.744	0.0	0.0	0.0	8962.3	1254.4	0.0	1982.1	5611.4
238.00	4.000	4.000	2.066	1.934	1.029	2.977	0.0	0.744	0.0	0.0	0.0	8981.1	1254.4	0.0	1986.9	5625.4
238.50	4.000	4.000	2.066	1.934	1.029	2.977	0.0	0.744	0.0	0.0	0.0	9000.0	1254.4	0.0	1991.8	5639.5
239.00	4.000	4.000	2.066	1.934	1.029	2.978	0.0	0.744	0.0	0.0	0.0	9018.9	1254.3	0.0	1996.6	5653.5
239.50	4.000	4.000	2.066	1.934	0.768	0.0	0.0	0.0	0.0	0.0	0.0	9037.7	1224.5	0.0	2001.2	5664.7
240.00	4.000	4.000	2.066	1.934	0.828	0.0	0.0	0.0	0.0	0.0	0.0	9056.6	1239.5	0.0	2005.0	5664.7
240.50	4.000	4.000	2.066	1.934	0.985	0.491	0.0	0.123	0.0	0.0	0.0	9075.5	1253.4	0.0	2009.4	5665.4
241.00	4.000	4.000	2.066	1.934	1.030	2.763	0.0	0.691	0.0	0.0	0.0	9094.3	1257.8	0.0	2014.2	5675.0
241.50	4.000	4.000	2.066	1.934	1.031	2.967	0.0	0.742	0.0	0.0	0.0	9113.2	1258.0	0.0	2019.1	5688.8
242.00	4.000	4.000	2.066	1.934	1.031	2.969	0.0	0.742	0.0	0.0	0.0	9132.1	1258.0	0.0	2024.0	5702.8
242.50	4.000	4.000	2.066	1.934	1.031	2.970	0.0	0.742	0.0	0.0	0.0	9150.9	1258.0	0.0	2028.8	5716.8
243.00	4.000	4.000	2.066	1.934	1.031	2.970	0.0	0.742	0.0	0.0	0.0	9169.8	1258.0	0.0	2033.7	5730.9
243.50	4.000	4.000	2.066	1.934	1.032	2.970	0.0	0.743	0.0	0.0	0.0	9188.7	1258.0	0.0	2038.6	5744.9
244.00	4.000	4.000	2.066	1.934	1.032	2.970	0.0	0.743	0.0	0.0	0.0	9207.5	1258.0	0.0	2043.4	5758.9
244.50	4.000	4.000	2.066	1.934	1.032	2.970	0.0	0.743	0.0	0.0	0.0	9226.4	1258.0	0.0	2048.3	5772.9
245.00	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9245.3	1257.9	0.0	2053.2	5786.9
245.50	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9264.2	1257.9	0.0	2058.0	5800.9
246.00	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9283.0	1257.9	0.0	2062.9	5814.9
246.50	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9301.9	1257.9	0.0	2067.8	5828.9
247.00	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9320.8	1257.9	0.0	2072.6	5843.0
247.50	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9339.6	1257.9	0.0	2077.5	5857.0
248.00	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9358.5	1257.9	0.0	2082.4	5871.0
248.50	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9377.4	1257.9	0.0	2087.2	5885.0
249.00	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9396.2	1257.8	0.0	2092.1	5899.0
249.50	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9415.1	1257.8	0.0	2097.0	5913.0

*** TIME = 250.00 (SEC) **** INLET AND OUTLET CONDITION ****

TQN2(C)	ZB2(M)	TQN5(C)	ZB5(M)	DD(I84)(MM)	DD(N1)(MM)	DP(M)	CRATIO
698.32	1.8621	0.0	3.6400	0.92462	2.1395	1.4128	0.74287

P, RL, RGST 2.0000D+04 7.4225D-06 8.7246D-09

I	IP	AG(I)	PC(I)	HT(I)	HR(I)	HCV(I)	UG(I)	UL(I)	TW(I)	TL/TG(I)	G(I)
1	1	0.0	2.000D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	100.0	1.069D-03
2	1	0.0	1.996D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.0	1.069D-03
3	1	0.0	1.992D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.9	1.069D-03
4	1	0.0	1.989D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	102.9	1.069D-03
5	1	0.0	1.985D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	103.8	1.069D-03
6	1	0.0	1.981D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	104.8	1.069D-03
7	1	0.0	1.977D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	105.8	1.069D-03
8	1	0.0	1.974D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	106.7	1.069D-03
9	1	0.0	1.970D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	107.7	1.069D-03
10	1	0.0	1.966D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	108.6	1.069D-03
11	1	0.0	1.962D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	109.6	1.069D-03
12	1	0.0	1.958D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	110.6	1.069D-03
13	1	0.0	1.955D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	111.5	1.069D-03
14	1	0.0	1.951D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	112.5	1.069D-03
15	1	0.0	1.947D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	114.4	1.069D-03
16	1	0.0	1.943D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	116.2	1.069D-03
17	1	0.0	1.940D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	118.1	1.069D-03
18	3	0.0119	1.936D+04	2564.	0.0	6.368D+06	1408.	145.7	130.0	120.0	1.069D-03
19	3	0.1161	1.932D+04	2564.	0.0	6.368D+06	3907.	162.3	130.0	119.6	1.069D-03
20	3	0.1818	1.929D+04	2564.	0.0	6.368D+06	4896.	174.7	130.0	119.6	1.069D-03
21	3	0.2205	1.926D+04	2564.	0.0	6.368D+06	6017.	182.7	130.0	119.6	1.069D-03
22	3	0.2529	1.923D+04	2564.	0.0	6.368D+06	6973.	190.0	130.0	119.6	1.069D-03
23	3	0.2812	1.920D+04	2564.	0.0	6.368D+06	7824.	196.7	130.0	119.6	1.069D-03
24	3	0.3066	1.917D+04	2564.	0.0	6.368D+06	8598.	203.2	130.0	119.6	1.069D-03
25	3	0.3299	1.915D+04	3411.	0.0	9.317D+06	9315.	209.5	131.1	119.6	1.069D-03
26	3	0.3610	1.912D+04	3411.	0.0	9.317D+06	1.028D+04	218.5	131.1	119.6	1.069D-03
27	3	0.3893	1.910D+04	3411.	0.0	9.317D+06	1.118D+04	227.4	131.1	119.6	1.069D-03
28	3	0.4155	1.907D+04	3411.	0.0	9.317D+06	1.201D+04	236.3	131.1	119.6	1.069D-03
29	3	0.4400	1.905D+04	3411.	0.0	9.317D+06	1.279D+04	245.3	131.1	119.6	1.069D-03
30	3	0.4629	1.903D+04	3411.	0.0	9.317D+06	1.354D+04	254.4	131.1	119.6	1.069D-03
31	3	0.4847	1.901D+04	3411.	0.0	9.317D+06	1.425D+04	263.7	131.1	119.6	1.069D-03
32	3	0.5054	1.899D+04	3411.	0.0	9.317D+06	1.493D+04	273.2	131.1	119.6	1.069D-03
33	3	0.5251	1.897D+04	3411.	0.0	9.317D+06	1.559D+04	282.0	131.1	119.6	1.069D-03
34	3	0.5441	1.895D+04	3411.	0.0	9.317D+06	1.622D+04	293.1	131.1	119.6	1.069D-03
35	3	0.5622	1.894D+04	3411.	0.0	9.317D+06	1.683D+04	303.5	131.1	119.6	1.069D-03
36	3	0.5798	1.892D+04	4391.	0.0	1.305D+07	1.742D+04	314.4	132.1	119.6	1.069D-03
37	3	0.6033	1.890D+04	4391.	0.0	1.305D+07	1.822D+04	330.4	132.1	119.6	1.069D-03
38	3	0.6258	1.889D+04	4391.	0.0	1.305D+07	1.900D+04	347.5	132.1	119.6	1.069D-03
39	3	0.6474	1.887D+04	4391.	0.0	1.305D+07	1.975D+04	365.7	132.1	119.6	1.069D-03
40	3	0.6681	1.886D+04	4391.	0.0	1.305D+07	2.048D+04	385.4	132.1	119.6	1.069D-03
41	3	0.6880	1.885D+04	4391.	0.0	1.305D+07	2.118D+04	406.6	132.1	119.6	1.069D-03
42	3	0.7072	1.883D+04	4391.	0.0	1.305D+07	2.187D+04	429.7	132.1	119.6	1.069D-03
43	3	0.7258	1.882D+04	4391.	0.0	1.305D+07	2.255D+04	455.0	132.1	119.6	1.069D-03
44	3	0.7437	1.881D+04	4391.	0.0	1.305D+07	2.321D+04	482.7	132.1	119.6	1.069D-03
45	3	0.7610	1.880D+04	4391.	0.0	1.305D+07	2.385D+04	513.2	132.1	119.6	1.069D-03
46	3	0.7777	1.879D+04	4391.	0.0	1.305D+07	2.449D+04	547.2	132.1	119.6	1.069D-03
47	3	0.7939	1.878D+04	4391.	0.0	1.305D+07	2.512D+04	585.1	132.1	119.6	1.069D-03
48	5	0.8158	1.878D+04	94.59	6.519D+06	6.500D+06	2.689D+04	641.9	697.0	119.6	1.069D-03
49	5	0.9393	1.875D+04	95.19	6.448D+06	6.595D+06	2.455D+04	1941.	694.4	121.4	1.070D-03
50	5	0.9479	1.875D+04	91.72	5.853D+06	6.747D+06	2.642D+04	2249.	696.0	156.6	1.070D-03

51	5	0.9554	1.874D+04	87.37	5.311D+06	7.162D+06	2.781D+04	2614.	718.6	172.6	1.070D-03
52	5	0.9612	1.874D+04	84.16	4.896D+06	7.609D+06	2.941D+04	2993.	743.0	191.0	1.070D-03
53	5	0.9658	1.873D+04	81.40	4.493D+06	8.019D+06	3.124D+04	3380.	764.6	212.4	1.070D-03
54	5	0.9695	1.873D+04	79.02	4.119D+06	8.384D+06	3.327D+04	3765.	783.5	236.2	1.070D-03
55	5	0.9724	1.873D+04	76.95	3.784D+06	8.702D+06	3.549D+04	4142.	800.5	262.4	1.070D-03
56	5	0.9747	1.873D+04	66.21	2.174D+06	6.939D+06	3.789D+04	4505.	697.1	290.7	1.070D-03
57	5	0.9763	1.872D+04	65.85	2.032D+06	6.988D+06	3.801D+04	4784.	694.3	286.6	1.070D-03
58	5	0.9776	1.872D+04	64.93	1.915D+06	7.038D+06	3.913D+04	5047.	698.3	297.4	1.070D-03
59	5	0.9787	1.872D+04	63.78	1.816D+06	7.088D+06	4.067D+04	5301.	704.9	314.3	1.070D-03
60	5	0.9797	1.872D+04	62.50	1.731D+06	7.106D+06	4.243D+04	5547.	712.9	334.2	1.070D-03
61	5	0.9806	1.871D+04	61.14	1.658D+06	7.115D+06	4.432D+04	5785.	721.7	355.8	1.070D-03
62	5	0.9814	1.871D+04	59.68	1.594D+06	7.103D+06	4.621D+04	6017.	731.1	378.6	1.070D-03
63	5	0.9821	1.871D+04	58.15	1.538D+06	7.070D+06	4.838D+04	6243.	740.8	402.3	1.070D-03
64	5	0.9828	1.871D+04	56.53	1.490D+06	7.014D+06	5.051D+04	6461.	750.9	426.6	1.070D-03
65	5	0.9833	1.870D+04	54.83	1.449D+06	6.937D+06	5.269D+04	6673.	761.3	451.3	1.070D-03
66	5	0.9839	1.870D+04	53.08	1.412D+06	6.838D+06	5.490D+04	6878.	771.9	476.4	1.070D-03
67	5	0.9844	1.870D+04	51.26	1.383D+06	6.719D+06	5.714D+04	7077.	782.7	501.6	1.070D-03
68	5	0.9848	1.870D+04	34.18	8.429D+05	3.694D+06	5.939D+04	7269.	676.6	526.8	1.070D-03
69	5	0.9852	1.870D+04	36.41	7.331D+05	3.749D+06	5.598D+04	7432.	636.1	476.8	1.070D-03
70	5	0.9855	1.870D+04	38.63	6.779D+05	3.880D+06	5.387D+04	7588.	614.5	444.6	1.070D-03
71	5	0.9858	1.869D+04	39.99	6.496D+05	3.979D+06	5.293D+04	7740.	605.2	428.5	1.070D-03
72	5	0.9861	1.869D+04	40.43	6.334D+05	4.025D+06	5.285D+04	7888.	602.9	424.0	1.070D-03
73	5	0.9864	1.869D+04	40.20	6.224D+05	4.022D+06	5.332D+04	8033.	604.2	426.7	1.070D-03
74	5	0.9866	1.869D+04	39.56	6.137D+05	3.985D+06	5.409D+04	8175.	607.3	433.5	1.070D-03
75	5	0.9869	1.869D+04	38.67	6.063D+05	3.927D+06	5.503D+04	8315.	611.3	442.4	1.070D-03
76	5	0.9871	1.869D+04	37.67	5.997D+05	3.856D+06	5.605D+04	8453.	615.8	452.4	1.070D-03
77	5	0.9873	1.868D+04	36.60	5.936D+05	3.776D+06	5.711D+04	8589.	620.4	462.7	1.070D-03
78	5	0.9876	1.868D+04	15.01	3.443D+05	1.080D+06	5.817D+04	8723.	517.5	473.2	1.070D-03
79	5	0.9877	1.868D+04	19.44	2.764D+05	1.323D+06	5.315D+04	8842.	464.5	406.1	1.070D-03
80	5	0.9879	1.868D+04	25.44	2.462D+05	1.670D+06	4.952D+04	8956.	435.5	357.4	1.070D-03
81	5	0.9881	1.868D+04	30.07	2.359D+05	1.944D+06	4.751D+04	9065.	423.7	329.7	1.070D-03
82	5	0.9882	1.868D+04	32.79	2.341D+05	2.123D+06	4.667D+04	9168.	421.1	317.1	1.070D-03
83	5	0.9884	1.868D+04	33.33	2.340D+05	2.174D+06	4.677D+04	9269.	422.7	316.3	1.070D-03
84	5	0.9885	1.868D+04	33.07	2.342D+05	2.178D+06	4.719D+04	9369.	425.6	319.8	1.070D-03
85	5	0.9886	1.868D+04	32.44	2.341D+05	2.157D+06	4.776D+04	9469.	428.8	325.0	1.070D-03
86	5	0.9888	1.867D+04	31.69	2.338D+05	2.126D+06	4.837D+04	9568.	431.9	330.7	1.070D-03
87	5	0.9889	1.867D+04	30.86	2.333D+05	2.087D+06	4.899D+04	9667.	434.9	336.6	1.070D-03
88	5	0.9890	1.867D+04	30.02	2.325D+05	2.044D+06	4.961D+04	9765.	437.7	342.4	1.070D-03
89	5	0.9891	1.867D+04	29.16	2.315D+05	1.998D+06	5.022D+04	9863.	440.3	348.0	1.070D-03
90	5	0.9892	1.867D+04	28.31	2.304D+05	1.951D+06	5.082D+04	9961.	442.8	353.5	1.070D-03
91	5	0.9894	1.867D+04	27.44	2.292D+05	1.900D+06	5.141D+04	1.0060+04	445.0	358.9	1.070D-03

NAME(1)= 250

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)		---->	<---	(KG/M**2) AT CORE FLOW		--->
250.00	4.000	4.000	2.066	1.934	1.032	2.971	0.0	0.743	0.0	0.0	0.0	9434.0	1257.8	0.0	2101.0	5927.0
250.50	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9452.8	1257.8	0.0	2106.7	5941.1
251.00	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9471.7	1257.8	0.0	2111.6	5955.1
251.50	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9490.6	1257.8	0.0	2116.4	5969.1
252.00	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9509.4	1257.7	0.0	2121.3	5983.1
252.50	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9528.3	1257.7	0.0	2126.2	5997.1
253.00	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9547.2	1257.7	0.0	2131.0	6011.1
253.50	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9566.0	1257.7	0.0	2135.9	6025.2
254.00	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9584.9	1257.7	0.0	2140.6	6039.2
254.50	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9603.8	1257.6	0.0	2145.7	6053.2
255.00	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9622.6	1257.6	0.0	2150.5	6067.2
255.50	4.000	4.000	2.066	1.934	1.032	2.972	0.0	0.743	0.0	0.0	0.0	9641.5	1257.6	0.0	2155.4	6081.2
256.00	4.000	4.000	2.066	1.934	1.033	2.973	0.0	0.743	0.0	0.0	0.0	9660.4	1257.6	0.0	2160.3	6095.3
256.50	4.000	4.000	2.066	1.934	1.033	2.973	0.0	0.743	0.0	0.0	0.0	9679.2	1257.5	0.0	2165.1	6109.3
257.00	4.000	4.000	2.066	1.934	1.033	2.973	0.0	0.743	0.0	0.0	0.0	9698.1	1257.5	0.0	2170.0	6123.3
257.50	4.000	4.000	2.066	1.934	1.033	2.974	0.0	0.743	0.0	0.0	0.0	9717.0	1257.5	0.0	2174.9	6137.3
258.00	4.000	4.000	2.066	1.934	1.033	2.975	0.0	0.744	0.0	0.0	0.0	9735.8	1257.4	0.0	2179.7	6151.4
258.50	4.000	4.000	2.066	1.934	0.793	0.0	0.0	0.0	0.0	0.0	0.0	9754.7	1231.2	0.0	2184.4	6162.6
259.00	4.000	4.000	2.066	1.934	0.870	0.000	0.0	0.000	0.0	0.0	0.0	9773.6	1246.1	0.0	2188.3	6162.6
259.50	4.000	4.000	2.066	1.934	1.007	1.070	0.0	0.268	0.0	0.0	0.0	9792.5	1258.7	0.0	2192.9	6164.3
260.00	4.000	4.000	2.066	1.934	1.034	2.879	0.0	0.720	0.0	0.0	0.0	9811.3	1261.3	0.0	2197.7	6175.7
260.50	4.000	4.000	2.066	1.934	1.035	2.965	0.0	0.741	0.0	0.0	0.0	9830.2	1261.4	0.0	2202.6	6189.6
261.00	4.000	4.000	2.066	1.934	1.035	2.966	0.0	0.741	0.0	0.0	0.0	9849.1	1261.4	0.0	2207.5	6203.6
261.50	4.000	4.000	2.066	1.934	1.035	2.966	0.0	0.742	0.0	0.0	0.0	9867.9	1261.4	0.0	2212.4	6217.6
262.00	4.000	4.000	2.066	1.934	1.035	2.966	0.0	0.742	0.0	0.0	0.0	9886.8	1261.4	0.0	2217.3	6231.6
262.50	4.000	4.000	2.066	1.934	1.035	2.966	0.0	0.742	0.0	0.0	0.0	9905.7	1261.3	0.0	2222.1	6245.6
263.00	4.000	4.000	2.066	1.934	1.035	2.967	0.0	0.742	0.0	0.0	0.0	9924.5	1261.3	0.0	2227.0	6259.6
263.50	4.000	4.000	2.066	1.934	1.035	2.967	0.0	0.742	0.0	0.0	0.0	9943.4	1261.3	0.0	2231.9	6273.6
264.00	4.000	4.000	2.066	1.934	1.035	2.967	0.0	0.742	0.0	0.0	0.0	9962.3	1261.3	0.0	2236.8	6287.6
264.50	4.000	4.000	2.066	1.934	1.035	2.967	0.0	0.742	0.0	0.0	0.0	9981.1	1261.3	0.0	2241.7	6301.6
265.00	4.000	4.000	2.066	1.934	1.035	2.967	0.0	0.742	0.0	0.0	0.0	10000.0	1261.3	0.0	2246.6	6315.6
265.50	4.000	4.000	2.066	1.934	1.035	2.967	0.0	0.742	0.0	0.0	0.0	10018.9	1261.3	0.0	2251.4	6329.6
266.00	4.000	4.000	2.066	1.934	1.036	2.967	0.0	0.742	0.0	0.0	0.0	10037.7	1261.3	0.0	2256.3	6343.6
266.50	4.000	4.000	2.066	1.934	1.036	2.967	0.0	0.742	0.0	0.0	0.0	10056.6	1261.3	0.0	2261.2	6357.6
267.00	4.000	4.000	2.066	1.934	1.036	2.967	0.0	0.742	0.0	0.0	0.0	10075.5	1261.2	0.0	2266.1	6371.6
267.50	4.000	4.000	2.066	1.934	1.036	2.967	0.0	0.742	0.0	0.0	0.0	10094.3	1261.2	0.0	2271.0	6385.6
268.00	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10113.2	1261.2	0.0	2275.9	6399.6
268.50	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10132.1	1261.2	0.0	2280.8	6413.6
269.00	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10150.9	1261.2	0.0	2285.6	6427.6
269.50	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10169.8	1261.2	0.0	2290.5	6441.6
270.00	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10188.7	1261.1	0.0	2295.4	6455.6
270.50	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10207.5	1261.1	0.0	2300.3	6469.6
271.00	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10226.4	1261.1	0.0	2305.2	6483.6
271.50	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10245.3	1261.1	0.0	2310.1	6497.5
272.00	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10264.2	1261.1	0.0	2315.0	6511.5
272.50	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10283.0	1261.1	0.0	2319.8	6525.6
273.00	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10301.9	1261.0	0.0	2324.7	6539.6
273.50	4.000	4.000	2.066	1.934	1.036	2.968	0.0	0.742	0.0	0.0	0.0	10320.8	1261.0	0.0	2329.6	6553.6
274.00	4.000	4.000	2.066	1.934	1.036	2.969	0.0	0.742	0.0	0.0	0.0	10339.6	1261.0	0.0	2334.5	6567.6
274.50	4.000	4.000	2.066	1.934	1.036	2.969	0.0	0.742	0.0	0.0	0.0	10358.5	1261.0	0.0	2339.4	6581.6

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPON	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC)	AT CORE WATER STATE				------>		<---	(M.AQ)	---->	<---	(KG/M**2)	AT CORE FLOW		--->
275.00	4.000	4.000	2.066	1.934	1.036	2.969	0.0	0.742	0.0	0.0	0.0	10377.4	1260.9	0.0	2344.3	6595.6
275.50	4.000	4.000	2.066	1.934	1.036	2.969	0.0	0.742	0.0	0.0	0.0	10396.2	1260.9	0.0	2349.2	6609.6
276.00	4.000	4.000	2.066	1.934	1.036	2.970	0.0	0.742	0.0	0.0	0.0	10415.1	1260.9	0.0	2354.1	6623.6
276.50	4.000	4.000	2.066	1.934	1.036	2.970	0.0	0.743	0.0	0.0	0.0	10434.0	1260.9	0.0	2358.9	6637.6
277.00	4.000	4.000	2.066	1.934	1.036	2.971	0.0	0.743	0.0	0.0	0.0	10452.8	1260.8	0.0	2363.8	6651.6
277.50	4.000	4.000	2.066	1.934	0.816	0.0	0.0	0.0	0.0	0.0	0.0	10471.7	1240.5	0.0	2368.3	6660.0
278.00	4.000	4.000	2.066	1.934	0.946	0.037	0.0	0.009	0.0	0.0	0.0	10490.6	1255.1	0.0	2372.5	6660.0
278.50	4.000	4.000	2.066	1.934	1.032	2.189	0.0	0.547	0.0	0.0	0.0	10509.4	1263.9	0.0	2377.3	6665.3
279.00	4.000	4.000	2.066	1.934	1.040	2.947	0.0	0.737	0.0	0.0	0.0	10528.3	1264.6	0.0	2382.2	6678.6
279.50	4.000	4.000	2.066	1.934	1.040	2.960	0.0	0.740	0.0	0.0	0.0	10547.2	1264.6	0.0	2387.1	6692.6
280.00	4.000	4.000	2.066	1.934	1.040	2.960	0.0	0.740	0.0	0.0	0.0	10566.0	1264.6	0.0	2392.0	6706.5
280.50	4.000	4.000	2.066	1.934	1.040	2.961	0.0	0.740	0.0	0.0	0.0	10584.9	1264.6	0.0	2396.9	6720.5
281.00	4.000	4.000	2.066	1.934	1.040	2.961	0.0	0.740	0.0	0.0	0.0	10603.8	1264.6	0.0	2401.8	6734.5
281.50	4.000	4.000	2.066	1.934	1.040	2.961	0.0	0.740	0.0	0.0	0.0	10622.6	1264.6	0.0	2406.7	6748.4
282.00	4.000	4.000	2.066	1.934	1.040	2.961	0.0	0.740	0.0	0.0	0.0	10641.5	1264.6	0.0	2411.6	6762.4
282.50	4.000	4.000	2.066	1.934	1.040	2.961	0.0	0.740	0.0	0.0	0.0	10660.4	1264.6	0.0	2416.5	6776.4
283.00	4.000	4.000	2.066	1.934	1.040	2.962	0.0	0.740	0.0	0.0	0.0	10679.2	1264.6	0.0	2421.4	6790.3
283.50	4.000	4.000	2.066	1.934	1.040	2.962	0.0	0.740	0.0	0.0	0.0	10698.1	1264.6	0.0	2426.3	6804.3
284.00	4.000	4.000	2.066	1.934	1.040	2.962	0.0	0.740	0.0	0.0	0.0	10717.0	1264.6	0.0	2431.2	6818.3
284.50	4.000	4.000	2.066	1.934	1.040	2.962	0.0	0.740	0.0	0.0	0.0	10735.8	1264.5	0.0	2436.1	6832.2
285.00	4.000	4.000	2.066	1.934	1.040	2.962	0.0	0.740	0.0	0.0	0.0	10754.7	1264.5	0.0	2441.0	6846.2
285.50	4.000	4.000	2.066	1.934	1.040	2.962	0.0	0.741	0.0	0.0	0.0	10773.6	1264.5	0.0	2446.0	6860.2
286.00	4.000	4.000	2.066	1.934	1.040	2.962	0.0	0.741	0.0	0.0	0.0	10792.5	1264.5	0.0	2450.9	6874.2
286.50	4.000	4.000	2.066	1.934	1.040	2.962	0.0	0.741	0.0	0.0	0.0	10811.3	1264.5	0.0	2455.8	6888.1
287.00	4.000	4.000	2.066	1.934	1.040	2.962	0.0	0.741	0.0	0.0	0.0	10830.2	1264.5	0.0	2460.7	6902.1
287.50	4.000	4.000	2.066	1.934	1.040	2.962	0.0	0.741	0.0	0.0	0.0	10849.1	1264.5	0.0	2465.6	6916.1
288.00	4.000	4.000	2.066	1.934	1.041	2.962	0.0	0.741	0.0	0.0	0.0	10867.9	1264.5	0.0	2470.5	6930.1
288.50	4.000	4.000	2.066	1.934	1.041	2.962	0.0	0.741	0.0	0.0	0.0	10886.8	1264.4	0.0	2475.4	6944.0
289.00	4.000	4.000	2.066	1.934	1.041	2.963	0.0	0.741	0.0	0.0	0.0	10905.7	1264.4	0.0	2480.3	6958.0
289.50	4.000	4.000	2.066	1.934	1.041	2.963	0.0	0.741	0.0	0.0	0.0	10924.5	1264.4	0.0	2485.2	6972.0
290.00	4.000	4.000	2.066	1.934	1.041	2.963	0.0	0.741	0.0	0.0	0.0	10943.4	1264.4	0.0	2490.1	6985.9
290.50	4.000	4.000	2.066	1.934	1.041	2.963	0.0	0.741	0.0	0.0	0.0	10962.3	1264.4	0.0	2495.0	6999.9
291.00	4.000	4.000	2.066	1.934	1.041	2.963	0.0	0.741	0.0	0.0	0.0	10981.1	1264.4	0.0	2499.9	7013.9
291.50	4.000	4.000	2.066	1.934	1.041	2.963	0.0	0.741	0.0	0.0	0.0	11000.0	1264.4	0.0	2504.9	7027.9
292.00	4.000	4.000	2.066	1.934	1.041	2.963	0.0	0.741	0.0	0.0	0.0	11018.9	1264.3	0.0	2509.8	7041.9
292.50	4.000	4.000	2.066	1.934	1.041	2.963	0.0	0.741	0.0	0.0	0.0	11037.7	1264.3	0.0	2514.7	7055.8
293.00	4.000	4.000	2.066	1.934	1.041	2.963	0.0	0.741	0.0	0.0	0.0	11056.6	1264.3	0.0	2519.6	7069.8
293.50	4.000	4.000	2.066	1.934	1.041	2.964	0.0	0.741	0.0	0.0	0.0	11075.5	1264.3	0.0	2524.5	7083.8
294.00	4.000	4.000	2.066	1.934	1.041	2.964	0.0	0.741	0.0	0.0	0.0	11094.3	1264.3	0.0	2529.4	7097.8
294.50	4.000	4.000	2.066	1.934	1.041	2.964	0.0	0.741	0.0	0.0	0.0	11113.2	1264.2	0.0	2534.3	7111.7
295.00	4.000	4.000	2.066	1.934	1.041	2.964	0.0	0.741	0.0	0.0	0.0	11132.1	1264.2	0.0	2539.2	7125.7
295.50	4.000	4.000	2.066	1.934	1.041	2.965	0.0	0.741	0.0	0.0	0.0	11150.9	1264.2	0.0	2544.1	7139.7
296.00	4.000	4.000	2.066	1.934	1.041	2.966	0.0	0.742	0.0	0.0	0.0	11169.8	1264.2	0.0	2549.0	7153.7
296.50	4.000	4.000	2.066	1.934	0.875	0.000	0.0	0.000	0.0	0.0	0.0	11188.7	1252.2	0.0	2553.3	7156.5
297.00	4.000	4.000	2.066	1.934	1.018	1.021	0.0	0.255	0.0	0.0	0.0	11207.5	1264.9	0.0	2557.9	7158.1
297.50	4.000	4.000	2.066	1.934	1.046	2.861	0.0	0.715	0.0	0.0	0.0	11226.4	1267.6	0.0	2562.8	7169.3
298.00	4.000	4.000	2.066	1.934	1.047	2.952	0.0	0.738	0.0	0.0	0.0	11245.3	1267.7	0.0	2567.7	7183.2
298.50	4.000	4.000	2.066	1.934	1.047	2.953	0.0	0.738	0.0	0.0	0.0	11264.2	1267.7	0.0	2572.7	7197.1
299.00	4.000	4.000	2.066	1.934	1.047	2.953	0.0	0.738	0.0	0.0	0.0	11283.0	1267.7	0.0	2577.6	7211.1
299.50	4.000	4.000	2.066	1.934	1.047	2.953	0.0	0.738	0.0	0.0	0.0	11301.9	1267.7	0.0	2582.5	7225.0

*** TIME = 300.00 (SEC) **** INLET AND OUTLET CONDITION ****

TQN2(C)	ZB2(M)	TQN5(C)	ZB5(M)	DD(IB4)(MM)	DD(N1)(MM)	DP(M)	CRATIO
701.88	1.9680	0.0	3.6400	0.81184	2.1992	1.4186	0.73840

P, RL, RGSI 2.0000D+04 7.4225D-06 8.7246D-09

I	IP	AG(I)	PC(I)	HT(I)	HR(I)	HCV(I)	UG(I)	UL(I)	TW(I)	TL/TG(I)	G(I)
1	1	0.0	2.000D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	100.0	1.069D-03
2	1	0.0	1.996D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.0	1.069D-03
3	1	0.0	1.992D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.9	1.069D-03
4	1	0.0	1.989D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	102.9	1.069D-03
5	1	0.0	1.985D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	103.8	1.069D-03
6	1	0.0	1.981D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	104.8	1.069D-03
7	1	0.0	1.977D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	105.8	1.069D-03
8	1	0.0	1.974D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	106.7	1.069D-03
9	1	0.0	1.970D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	107.7	1.069D-03
10	1	0.0	1.966D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	108.6	1.069D-03
11	1	0.0	1.962D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	109.6	1.069D-03
12	1	0.0	1.958D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	110.6	1.069D-03
13	1	0.0	1.955D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	111.5	1.069D-03
14	1	0.0	1.951D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	112.5	1.069D-03
15	1	0.0	1.947D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	114.4	1.069D-03
16	1	0.0	1.943D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	116.2	1.069D-03
17	1	0.0	1.940D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	118.1	1.069D-03
18	3	0.0119	1.936D+04	2564.	0.0	6.368D+06	1408.	145.7	130.0	120.0	1.069D-03
19	3	0.1161	1.932D+04	2564.	0.0	6.368D+06	3907.	162.3	130.0	119.6	1.069D-03
20	3	0.1818	1.929D+04	2564.	0.0	6.368D+06	4896.	174.7	130.0	119.6	1.069D-03
21	3	0.2205	1.926D+04	2564.	0.0	6.368D+06	6017.	182.7	130.0	119.6	1.069D-03
22	3	0.2529	1.923D+04	2564.	0.0	6.368D+06	6973.	190.0	130.0	119.6	1.069D-03
23	3	0.2812	1.920D+04	2564.	0.0	6.368D+06	7824.	196.7	130.0	119.6	1.069D-03
24	3	0.3066	1.917D+04	2564.	0.0	6.368D+06	8598.	203.2	130.0	119.6	1.069D-03
25	3	0.3299	1.915D+04	3411.	0.0	9.317D+06	9315.	209.5	131.1	119.6	1.069D-03
26	3	0.3610	1.912D+04	3411.	0.0	9.317D+06	1.028D+04	218.5	131.1	119.6	1.069D-03
27	3	0.3893	1.910D+04	3411.	0.0	9.317D+06	1.118D+04	227.4	131.1	119.6	1.069D-03
28	3	0.4155	1.907D+04	3411.	0.0	9.317D+06	1.201D+04	236.3	131.1	119.6	1.069D-03
29	3	0.4400	1.905D+04	3411.	0.0	9.317D+06	1.279D+04	245.3	131.1	119.6	1.069D-03
30	3	0.4629	1.903D+04	3411.	0.0	9.317D+06	1.354D+04	254.4	131.1	119.6	1.069D-03
31	3	0.4847	1.901D+04	3411.	0.0	9.317D+06	1.425D+04	263.7	131.1	119.6	1.069D-03
32	3	0.5054	1.899D+04	3411.	0.0	9.317D+06	1.493D+04	273.2	131.1	119.6	1.069D-03
33	3	0.5251	1.897D+04	3411.	0.0	9.317D+06	1.559D+04	283.0	131.1	119.6	1.069D-03
34	3	0.5441	1.895D+04	3411.	0.0	9.317D+06	1.622D+04	293.1	131.1	119.6	1.069D-03
35	3	0.5622	1.894D+04	3411.	0.0	9.317D+06	1.683D+04	303.5	131.1	119.6	1.069D-03
36	3	0.5798	1.892D+04	4391.	0.0	1.305D+07	1.742D+04	314.4	132.1	119.6	1.069D-03
37	3	0.6033	1.890D+04	4391.	0.0	1.305D+07	1.822D+04	330.4	132.1	119.6	1.069D-03
38	3	0.6258	1.889D+04	4391.	0.0	1.305D+07	1.900D+04	347.5	132.1	119.6	1.069D-03
39	3	0.6474	1.887D+04	4391.	0.0	1.305D+07	1.975D+04	365.7	132.1	119.6	1.069D-03
40	3	0.6681	1.886D+04	4391.	0.0	1.305D+07	2.048D+04	385.4	132.1	119.6	1.069D-03
41	3	0.6880	1.885D+04	4391.	0.0	1.305D+07	2.118D+04	406.6	132.1	119.6	1.069D-03
42	3	0.7072	1.883D+04	4391.	0.0	1.305D+07	2.187D+04	429.7	132.1	119.6	1.069D-03
43	3	0.7258	1.882D+04	4391.	0.0	1.305D+07	2.255D+04	455.0	132.1	119.6	1.069D-03
44	3	0.7437	1.881D+04	4391.	0.0	1.305D+07	2.321D+04	482.7	132.1	119.6	1.069D-03
45	3	0.7610	1.880D+04	4391.	0.0	1.305D+07	2.385D+04	513.2	132.1	119.6	1.069D-03
46	3	0.7777	1.879D+04	4391.	0.0	1.305D+07	2.449D+04	547.2	132.1	119.6	1.069D-03
47	3	0.7939	1.878D+04	4391.	0.0	1.305D+07	2.512D+04	585.1	132.1	119.6	1.069D-03
48	3	0.8096	1.878D+04	4391.	0.0	1.305D+07	2.574D+04	627.6	132.1	119.6	1.069D-03
49	3	0.8247	1.877D+04	4391.	0.0	1.305D+07	2.635D+04	675.6	132.1	119.6	1.069D-03
50	3	0.8392	1.876D+04	4391.	0.0	1.305D+07	2.696D+04	730.2	132.1	119.6	1.069D-03

51	5	0.8550	1.875D+04	102.9	7.401D+06	7.506D+06	2.881D+04	793.5	727.5	119.6	1.069D-03
52	5	0.9713	1.873D+04	81.56	4.326D+06	8.015D+06	2.683D+04	3990.	754.5	134.0	1.069D-03
53	5	0.9733	1.873D+04	79.58	3.976D+06	8.447D+06	2.973D+04	4273.	774.6	173.2	1.069D-03
54	5	0.9752	1.872D+04	78.34	3.747D+06	8.816D+06	3.174D+04	4587.	792.5	197.7	1.069D-03
55	5	0.9769	1.872D+04	77.23	3.529D+06	9.154D+06	3.379D+04	4906.	808.8	222.1	1.069D-03
56	5	0.9784	1.872D+04	68.58	2.061D+06	7.475D+06	3.599D+04	5225.	703.1	248.1	1.069D-03
57	5	0.9794	1.872D+04	68.18	1.951D+06	7.512D+06	3.638D+04	5467.	702.0	249.1	1.069D-03
58	5	0.9803	1.871D+04	67.37	1.855D+06	7.574D+06	3.769D+04	5699.	707.0	263.4	1.069D-03
59	5	0.9811	1.871D+04	66.42	1.773D+06	7.641D+06	3.934D+04	5927.	714.4	282.2	1.069D-03
60	5	0.9818	1.871D+04	65.39	1.702D+06	7.701D+06	4.115D+04	6151.	723.1	303.2	1.069D-03
61	5	0.9825	1.871D+04	64.27	1.641D+06	7.749D+06	4.309D+04	6372.	732.6	325.7	1.069D-03
62	5	0.9831	1.871D+04	63.06	1.587D+06	7.790D+06	4.515D+04	6588.	742.9	349.5	1.069D-03
63	5	0.9837	1.870D+04	61.75	1.541D+06	7.792D+06	4.730D+04	6801.	753.8	374.3	1.069D-03
64	5	0.9842	1.870D+04	60.34	1.501D+06	7.783D+06	4.955D+04	7008.	765.3	400.2	1.069D-03
65	5	0.9847	1.870D+04	58.81	1.467D+06	7.750D+06	5.188D+04	7211.	777.3	427.1	1.069D-03
66	5	0.9851	1.870D+04	57.18	1.439D+06	7.695D+06	5.430D+04	7408.	789.9	454.7	1.069D-03
67	5	0.9855	1.869D+04	55.45	1.416D+06	7.615D+06	5.678D+04	7600.	803.0	483.1	1.069D-03
68	5	0.9859	1.869D+04	39.91	8.811D+05	4.641D+06	5.933D+04	7787.	700.2	512.0	1.069D-03
69	5	0.9862	1.869D+04	41.14	7.739D+05	4.550D+06	5.652D+04	7944.	662.7	471.0	1.069D-03
70	5	0.9865	1.869D+04	42.23	7.139D+05	4.539D+06	5.488D+04	8095.	641.6	445.7	1.069D-03
71	5	0.9868	1.869D+04	42.86	6.815D+05	4.552D+06	5.423D+04	8241.	631.9	433.7	1.069D-03
72	5	0.9870	1.869D+04	42.93	6.635D+05	4.554D+06	5.432D+04	8383.	629.6	431.6	1.069D-03
73	5	0.9872	1.869D+04	42.50	6.527D+05	4.531D+06	5.492D+04	8523.	631.3	436.2	1.069D-03
74	5	0.9875	1.868D+04	41.72	6.456D+05	4.484D+06	5.585D+04	8661.	635.4	444.9	1.069D-03
75	5	0.9877	1.868D+04	40.73	6.404D+05	4.419D+06	5.696D+04	8796.	640.8	455.9	1.069D-03
76	5	0.9879	1.868D+04	39.60	6.363D+05	4.339D+06	5.818D+04	8930.	646.7	468.3	1.069D-03
77	5	0.9881	1.868D+04	38.41	6.330D+05	4.251D+06	5.946D+04	9061.	653.1	481.3	1.069D-03
78	5	0.9883	1.868D+04	18.45	3.847D+05	1.532D+06	6.075D+04	9191.	555.4	494.6	1.069D-03
79	5	0.9884	1.868D+04	21.22	3.101D+05	1.622D+06	5.608D+04	9307.	501.5	432.9	1.069D-03
80	5	0.9886	1.868D+04	25.55	2.707D+05	1.850D+06	5.247D+04	9418.	467.6	385.1	1.069D-03
81	5	0.9887	1.868D+04	29.57	2.536D+05	2.081D+06	5.021D+04	9524.	450.7	354.6	1.069D-03
82	5	0.9888	1.867D+04	32.13	2.476D+05	2.243D+06	4.914D+04	9627.	444.7	339.3	1.069D-03
83	5	0.9890	1.867D+04	33.30	2.463D+05	2.332D+06	4.890D+04	9727.	444.4	334.3	1.069D-03
84	5	0.9891	1.867D+04	33.59	2.469D+05	2.373D+06	4.913D+04	9825.	446.9	335.3	1.069D-03
85	5	0.9892	1.867D+04	33.58	2.481D+05	2.399D+06	4.952D+04	9922.	450.3	338.2	1.069D-03
86	5	0.9893	1.867D+04	33.17	2.491D+05	2.396D+06	5.007D+04	1.002D+04	454.1	343.1	1.069D-03
87	5	0.9894	1.867D+04	32.42	2.495D+05	2.364D+06	5.074D+04	1.012D+04	457.8	349.6	1.069D-03
88	5	0.9896	1.867D+04	31.38	2.493D+05	2.308D+06	5.151D+04	1.021D+04	461.5	357.0	1.069D-03
89	5	0.9897	1.866D+04	30.43	2.491D+05	2.256D+06	5.224D+04	1.031D+04	465.0	364.1	1.069D-03
90	5	0.9898	1.866D+04	29.60	2.490D+05	2.212D+06	5.292D+04	1.040D+04	468.4	370.4	1.069D-03
91	5	0.9899	1.866D+04	28.81	2.488D+05	2.169D+06	5.358D+04	1.050D+04	471.6	376.6	1.069D-03

NAME(1)= 300

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>	<---	(M.AQ)		---->	<---	(KG/M**2) AT CORE FLOW			--->
300.00	4.000	4.000	2.066	1.934	1.047	2.954	0.0	0.738	0.0	0.0	0.0	11320.8	1267.7	0.0	2587.5	7238.9
300.50	4.000	4.000	2.066	1.934	1.047	2.954	0.0	0.738	0.0	0.0	0.0	11339.6	1267.7	0.0	2592.4	7252.9
301.00	4.000	4.000	2.066	1.934	1.047	2.954	0.0	0.738	0.0	0.0	0.0	11358.5	1267.7	0.0	2597.4	7266.8
301.50	4.000	4.000	2.066	1.934	1.047	2.954	0.0	0.739	0.0	0.0	0.0	11377.4	1267.6	0.0	2602.3	7280.7
302.00	4.000	4.000	2.066	1.934	1.047	2.954	0.0	0.739	0.0	0.0	0.0	11396.2	1267.6	0.0	2607.2	7294.7
302.50	4.000	4.000	2.066	1.934	1.047	2.954	0.0	0.739	0.0	0.0	0.0	11415.1	1267.6	0.0	2612.2	7308.6
303.00	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11434.0	1267.6	0.0	2617.1	7322.5
303.50	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11452.8	1267.6	0.0	2622.1	7336.5
304.00	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11471.7	1267.6	0.0	2627.0	7350.4
304.50	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11490.6	1267.6	0.0	2631.9	7364.4
305.00	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11509.4	1267.6	0.0	2636.9	7378.3
305.50	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11528.3	1267.6	0.0	2641.8	7392.2
306.00	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11547.2	1267.6	0.0	2646.7	7406.2
306.50	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11566.0	1267.6	0.0	2651.7	7420.1
307.00	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11584.9	1267.6	0.0	2656.6	7434.1
307.50	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11603.8	1267.5	0.0	2661.6	7448.0
308.00	4.000	4.000	2.066	1.934	1.047	2.955	0.0	0.739	0.0	0.0	0.0	11622.6	1267.5	0.0	2666.5	7461.9
308.50	4.000	4.000	2.066	1.934	1.047	2.956	0.0	0.739	0.0	0.0	0.0	11641.5	1267.5	0.0	2671.4	7475.9
309.00	4.000	4.000	2.066	1.934	1.047	2.956	0.0	0.739	0.0	0.0	0.0	11660.4	1267.5	0.0	2676.4	7489.8
309.50	4.000	4.000	2.066	1.934	1.047	2.956	0.0	0.739	0.0	0.0	0.0	11679.2	1267.5	0.0	2681.3	7503.8
310.00	4.000	4.000	2.066	1.934	1.047	2.956	0.0	0.739	0.0	0.0	0.0	11698.1	1267.5	0.0	2686.2	7517.7
310.50	4.000	4.000	2.066	1.934	1.047	2.956	0.0	0.739	0.0	0.0	0.0	11717.0	1267.5	0.0	2691.2	7531.6
311.00	4.000	4.000	2.066	1.934	1.047	2.956	0.0	0.739	0.0	0.0	0.0	11735.8	1267.5	0.0	2696.1	7545.6
311.50	4.000	4.000	2.066	1.934	1.047	2.956	0.0	0.739	0.0	0.0	0.0	11754.7	1267.4	0.0	2701.1	7559.5
312.00	4.000	4.000	2.066	1.934	1.047	2.956	0.0	0.739	0.0	0.0	0.0	11773.6	1267.4	0.0	2706.0	7573.5
312.50	4.000	4.000	2.066	1.934	1.047	2.956	0.0	0.739	0.0	0.0	0.0	11792.5	1267.4	0.0	2710.9	7587.4
313.00	4.000	4.000	2.066	1.934	1.047	2.957	0.0	0.739	0.0	0.0	0.0	11811.3	1267.4	0.0	2715.9	7601.4
313.50	4.000	4.000	2.066	1.934	1.047	2.957	0.0	0.739	0.0	0.0	0.0	11830.2	1267.4	0.0	2720.8	7615.3
314.00	4.000	4.000	2.066	1.934	1.047	2.957	0.0	0.739	0.0	0.0	0.0	11849.1	1267.4	0.0	2725.8	7629.3
314.50	4.000	4.000	2.066	1.934	1.047	2.958	0.0	0.739	0.0	0.0	0.0	11867.9	1267.3	0.0	2730.7	7643.2
315.00	4.000	4.000	2.066	1.934	1.047	2.958	0.0	0.740	0.0	0.0	0.0	11886.8	1267.3	0.0	2735.6	7657.2
315.50	4.000	4.000	2.066	1.934	1.047	2.960	0.0	0.740	0.0	0.0	0.0	11905.7	1267.3	0.0	2740.6	7671.1
316.00	4.000	4.000	2.066	1.934	0.924	0.003	0.0	0.001	0.0	0.0	0.0	11924.5	1257.5	0.0	2745.0	7673.9
316.50	4.000	4.000	2.066	1.934	1.037	1.520	0.0	0.380	0.0	0.0	0.0	11943.4	1268.9	0.0	2749.7	7676.8
317.00	4.000	4.000	2.066	1.934	1.055	2.902	0.0	0.726	0.0	0.0	0.0	11962.3	1270.5	0.0	2754.6	7689.0
317.50	4.000	4.000	2.066	1.934	1.055	2.944	0.0	0.736	0.0	0.0	0.0	11981.1	1270.5	0.0	2759.6	7702.9
318.00	4.000	4.000	2.066	1.934	1.055	2.944	0.0	0.736	0.0	0.0	0.0	12000.0	1270.5	0.0	2764.6	7716.8
318.50	4.000	4.000	2.066	1.934	1.055	2.945	0.0	0.736	0.0	0.0	0.0	12018.9	1270.5	0.0	2769.6	7730.7
319.00	4.000	4.000	2.066	1.934	1.055	2.945	0.0	0.736	0.0	0.0	0.0	12037.7	1270.5	0.0	2774.6	7744.5
319.50	4.000	4.000	2.066	1.934	1.055	2.945	0.0	0.736	0.0	0.0	0.0	12056.6	1270.5	0.0	2779.5	7758.4
320.00	4.000	4.000	2.066	1.934	1.055	2.945	0.0	0.736	0.0	0.0	0.0	12075.5	1270.5	0.0	2784.5	7772.3
320.50	4.000	4.000	2.066	1.934	1.055	2.946	0.0	0.736	0.0	0.0	0.0	12094.3	1270.5	0.0	2789.5	7786.2
321.00	4.000	4.000	2.066	1.934	1.055	2.946	0.0	0.736	0.0	0.0	0.0	12113.2	1270.5	0.0	2794.5	7800.1
321.50	4.000	4.000	2.066	1.934	1.055	2.946	0.0	0.736	0.0	0.0	0.0	12132.1	1270.5	0.0	2799.4	7814.0
322.00	4.000	4.000	2.066	1.934	1.055	2.946	0.0	0.736	0.0	0.0	0.0	12150.9	1270.5	0.0	2804.4	7827.9
322.50	4.000	4.000	2.066	1.934	1.055	2.946	0.0	0.737	0.0	0.0	0.0	12169.8	1270.5	0.0	2809.4	7841.8
323.00	4.000	4.000	2.066	1.934	1.055	2.946	0.0	0.737	0.0	0.0	0.0	12188.7	1270.5	0.0	2814.4	7855.7
323.50	4.000	4.000	2.066	1.934	1.055	2.946	0.0	0.737	0.0	0.0	0.0	12207.5	1270.5	0.0	2819.3	7869.6
324.00	4.000	4.000	2.066	1.934	1.055	2.946	0.0	0.737	0.0	0.0	0.0	12226.4	1270.5	0.0	2824.3	7883.5
324.50	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12245.3	1270.5	0.0	2829.3	7897.4

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC)	AT CORE WATER STATE				------>		<---	(M.AQ)	---->	<---	(KG/M**2)	AT CORE FLOW		--->
325.00	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12264.2	1270.5	0.0	2834.3	7911.3
325.50	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12283.0	1270.5	0.0	2839.2	7925.2
326.00	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12301.9	1270.5	0.0	2844.2	7939.1
326.50	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12320.8	1270.5	0.0	2849.2	7953.0
327.00	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12339.6	1270.4	0.0	2854.2	7966.9
327.50	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12358.5	1270.4	0.0	2859.2	7980.8
328.00	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12377.4	1270.4	0.0	2864.1	7994.7
328.50	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12396.2	1270.4	0.0	2869.1	8008.6
329.00	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12415.1	1270.4	0.0	2874.1	8022.5
329.50	4.000	4.000	2.066	1.934	1.055	2.947	0.0	0.737	0.0	0.0	0.0	12434.0	1270.4	0.0	2879.1	8036.4
330.00	4.000	4.000	2.066	1.934	1.055	2.948	0.0	0.737	0.0	0.0	0.0	12452.8	1270.4	0.0	2884.0	8050.3
330.50	4.000	4.000	2.066	1.934	1.055	2.948	0.0	0.737	0.0	0.0	0.0	12471.7	1270.4	0.0	2889.0	8064.2
331.00	4.000	4.000	2.066	1.934	1.055	2.948	0.0	0.737	0.0	0.0	0.0	12490.6	1270.4	0.0	2894.0	8078.1
331.50	4.000	4.000	2.066	1.934	1.055	2.948	0.0	0.737	0.0	0.0	0.0	12509.4	1270.3	0.0	2899.0	8092.0
332.00	4.000	4.000	2.066	1.934	1.055	2.948	0.0	0.737	0.0	0.0	0.0	12528.3	1270.3	0.0	2903.9	8105.9
332.50	4.000	4.000	2.066	1.934	1.055	2.948	0.0	0.737	0.0	0.0	0.0	12547.2	1270.3	0.0	2908.9	8119.8
333.00	4.000	4.000	2.066	1.934	1.055	2.948	0.0	0.737	0.0	0.0	0.0	12566.0	1270.3	0.0	2913.9	8133.7
333.50	4.000	4.000	2.066	1.934	1.055	2.949	0.0	0.737	0.0	0.0	0.0	12584.9	1270.3	0.0	2918.9	8147.6
334.00	4.000	4.000	2.066	1.934	1.055	2.949	0.0	0.737	0.0	0.0	0.0	12603.8	1270.3	0.0	2923.8	8161.6
334.50	4.000	4.000	2.066	1.934	1.055	2.949	0.0	0.737	0.0	0.0	0.0	12622.6	1270.3	0.0	2928.8	8175.5
335.00	4.000	4.000	2.066	1.934	1.055	2.950	0.0	0.737	0.0	0.0	0.0	12641.5	1270.2	0.0	2933.8	8189.4
335.50	4.000	4.000	2.066	1.934	1.055	2.950	0.0	0.738	0.0	0.0	0.0	12660.4	1270.2	0.0	2938.8	8203.3
336.00	4.000	4.000	2.066	1.934	1.055	2.952	0.0	0.738	0.0	0.0	0.0	12679.2	1270.2	0.0	2943.7	8217.2
336.50	4.000	4.000	2.066	1.934	0.985	0.090	0.0	0.023	0.0	0.0	0.0	12698.1	1265.2	0.0	2948.2	8217.3
337.00	4.000	4.000	2.066	1.934	1.060	2.381	0.0	0.595	0.0	0.0	0.0	12717.0	1272.7	0.0	2953.1	8223.7
337.50	4.000	4.000	2.066	1.934	1.065	2.928	0.0	0.732	0.0	0.0	0.0	12735.8	1273.2	0.0	2958.1	8237.1
338.00	4.000	4.000	2.066	1.934	1.065	2.934	0.0	0.734	0.0	0.0	0.0	12754.7	1273.2	0.0	2963.1	8250.9
338.50	4.000	4.000	2.066	1.934	1.065	2.934	0.0	0.734	0.0	0.0	0.0	12773.6	1273.2	0.0	2968.2	8264.8
339.00	4.000	4.000	2.066	1.934	1.065	2.935	0.0	0.734	0.0	0.0	0.0	12792.5	1273.2	0.0	2973.2	8278.6
339.50	4.000	4.000	2.066	1.934	1.065	2.935	0.0	0.734	0.0	0.0	0.0	12811.3	1273.2	0.0	2978.2	8292.5
340.00	4.000	4.000	2.066	1.934	1.065	2.935	0.0	0.734	0.0	0.0	0.0	12830.2	1273.2	0.0	2983.2	8306.3
340.50	4.000	4.000	2.066	1.934	1.065	2.935	0.0	0.734	0.0	0.0	0.0	12849.1	1273.2	0.0	2988.3	8320.2
341.00	4.000	4.000	2.066	1.934	1.065	2.936	0.0	0.734	0.0	0.0	0.0	12867.9	1273.2	0.0	2993.3	8334.0
341.50	4.000	4.000	2.066	1.934	1.065	2.936	0.0	0.734	0.0	0.0	0.0	12886.8	1273.2	0.0	2998.3	8347.9
342.00	4.000	4.000	2.066	1.934	1.065	2.936	0.0	0.734	0.0	0.0	0.0	12905.7	1273.2	0.0	3003.3	8361.7
342.50	4.000	4.000	2.066	1.934	1.065	2.936	0.0	0.734	0.0	0.0	0.0	12924.5	1273.2	0.0	3008.4	8375.6
343.00	4.000	4.000	2.066	1.934	1.065	2.936	0.0	0.734	0.0	0.0	0.0	12943.4	1273.2	0.0	3013.4	8389.4
343.50	4.000	4.000	2.066	1.934	1.065	2.936	0.0	0.734	0.0	0.0	0.0	12962.3	1273.2	0.0	3018.4	8403.3
344.00	4.000	4.000	2.066	1.934	1.065	2.936	0.0	0.734	0.0	0.0	0.0	12981.1	1273.2	0.0	3023.4	8417.1
344.50	4.000	4.000	2.066	1.934	1.065	2.936	0.0	0.734	0.0	0.0	0.0	13000.0	1273.2	0.0	3028.4	8431.0
345.00	4.000	4.000	2.066	1.934	1.065	2.937	0.0	0.734	0.0	0.0	0.0	13018.9	1273.2	0.0	3033.5	8444.8
345.50	4.000	4.000	2.066	1.934	1.065	2.937	0.0	0.734	0.0	0.0	0.0	13037.7	1273.1	0.0	3038.5	8458.7
346.00	4.000	4.000	2.066	1.934	1.065	2.937	0.0	0.734	0.0	0.0	0.0	13056.6	1273.1	0.0	3043.5	8472.5
346.50	4.000	4.000	2.066	1.934	1.065	2.937	0.0	0.734	0.0	0.0	0.0	13075.5	1273.1	0.0	3048.5	8486.4
347.00	4.000	4.000	2.066	1.934	1.065	2.937	0.0	0.734	0.0	0.0	0.0	13094.3	1273.1	0.0	3053.6	8500.2
347.50	4.000	4.000	2.066	1.934	1.065	2.937	0.0	0.734	0.0	0.0	0.0	13113.2	1273.1	0.0	3058.6	8514.1
348.00	4.000	4.000	2.066	1.934	1.065	2.937	0.0	0.734	0.0	0.0	0.0	13132.1	1273.1	0.0	3063.6	8527.9
348.50	4.000	4.000	2.066	1.934	1.065	2.937	0.0	0.734	0.0	0.0	0.0	13150.9	1273.1	0.0	3068.6	8541.8
349.00	4.000	4.000	2.066	1.934	1.065	2.937	0.0	0.734	0.0	0.0	0.0	13169.8	1273.1	0.0	3073.6	8555.6
349.50	4.000	4.000	2.066	1.934	1.064	2.937	0.0	0.734	0.0	0.0	0.0	13188.7	1273.1	0.0	3078.7	8569.5

*** TIME = 350.00 (SEC) **** INLET AND OUTLET CONDITION ****

TQN2(C)	Z82(M)	TQN5(C)	Z85(M)	DO(IB4)(MM)	DO(NI)(MM)	DP(M)	CRATIO
745.28	2.0664	0.0	3.6400	0.76794	2.2443	1.4215	0.73439

P, RL, RGST 2.0000D+04 7.4225D-06 8.7246D-09

I	IP	AG(I)	PC(I)	HT(I)	HR(I)	HCV(I)	UG(I)	UL(I)	TW(I)	TL/TG(I)	G(I)
1	1	0.0	2.000D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	100.0	1.069D-03
2	1	0.0	1.996D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.0	1.069D-03
3	1	0.0	1.992D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.9	1.069D-03
4	1	0.0	1.989D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	102.9	1.069D-03
5	1	0.0	1.985D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	103.8	1.069D-03
6	1	0.0	1.981D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	104.8	1.069D-03
7	1	0.0	1.977D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	105.8	1.069D-03
8	1	0.0	1.974D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	106.7	1.069D-03
9	1	0.0	1.970D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	107.7	1.069D-03
10	1	0.0	1.966D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	108.6	1.069D-03
11	1	0.0	1.962D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	109.6	1.069D-03
12	1	0.0	1.958D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	110.6	1.069D-03
13	1	0.0	1.955D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	111.5	1.069D-03
14	1	0.0	1.951D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	112.5	1.069D-03
15	1	0.0	1.947D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	114.4	1.069D-03
16	1	0.0	1.943D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	116.2	1.069D-03
17	1	0.0	1.940D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	118.1	1.069D-03
18	3	0.0119	1.936D+04	2564.	0.0	6.368D+06	1408.	145.7	130.0	120.0	1.069D-03
19	3	0.1161	1.932D+04	2564.	0.0	6.368D+06	3907.	162.3	130.0	119.6	1.069D-03
20	3	0.1818	1.929D+04	2564.	0.0	6.368D+06	4896.	174.7	130.0	119.6	1.069D-03
21	3	0.2205	1.926D+04	2564.	0.0	6.368D+06	6017.	182.7	130.0	119.6	1.069D-03
22	3	0.2529	1.923D+04	2564.	0.0	6.368D+06	6973.	190.0	130.0	119.6	1.069D-03
23	3	0.2812	1.920D+04	2564.	0.0	6.368D+06	7824.	196.7	130.0	119.6	1.069D-03
24	3	0.3066	1.917D+04	2564.	0.0	6.368D+06	8598.	203.2	130.0	119.6	1.069D-03
25	3	0.3299	1.915D+04	3411.	0.0	9.317D+06	9315.	209.5	131.1	119.6	1.069D-03
26	3	0.3610	1.912D+04	3411.	0.0	9.317D+06	1.028D+04	218.5	131.1	119.6	1.069D-03
27	3	0.3893	1.910D+04	3411.	0.0	9.317D+06	1.118D+04	227.4	131.1	119.6	1.069D-03
28	3	0.4155	1.907D+04	3411.	0.0	9.317D+06	1.201D+04	236.3	131.1	119.6	1.069D-03
29	3	0.4400	1.905D+04	3411.	0.0	9.317D+06	1.279D+04	245.3	131.1	119.6	1.069D-03
30	3	0.4629	1.903D+04	3411.	0.0	9.317D+06	1.354D+04	254.4	131.1	119.6	1.069D-03
31	3	0.4847	1.901D+04	3411.	0.0	9.317D+06	1.425D+04	263.7	131.1	119.6	1.069D-03
32	3	0.5054	1.899D+04	3411.	0.0	9.317D+06	1.493D+04	273.2	131.1	119.6	1.069D-03
33	3	0.5251	1.897D+04	3411.	0.0	9.317D+06	1.559D+04	283.0	131.1	119.6	1.069D-03
34	3	0.5441	1.895D+04	3411.	0.0	9.317D+06	1.622D+04	293.1	131.1	119.6	1.069D-03
35	3	0.5622	1.894D+04	3411.	0.0	9.317D+06	1.683D+04	303.5	131.1	119.6	1.069D-03
36	3	0.5798	1.892D+04	4391.	0.0	1.305D+07	1.742D+04	314.4	132.1	119.6	1.069D-03
37	3	0.6033	1.890D+04	4391.	0.0	1.305D+07	1.822D+04	330.4	132.1	119.6	1.069D-03
38	3	0.6258	1.889D+04	4391.	0.0	1.305D+07	1.900D+04	347.5	132.1	119.6	1.069D-03
39	3	0.6474	1.887D+04	4391.	0.0	1.305D+07	1.975D+04	365.7	132.1	119.6	1.069D-03
40	3	0.6681	1.886D+04	4391.	0.0	1.305D+07	2.048D+04	385.4	132.1	119.6	1.069D-03
41	3	0.6880	1.885D+04	4391.	0.0	1.305D+07	2.118D+04	406.6	132.1	119.6	1.069D-03
42	3	0.7072	1.883D+04	4391.	0.0	1.305D+07	2.187D+04	429.7	132.1	119.6	1.069D-03
43	3	0.7258	1.882D+04	4391.	0.0	1.305D+07	2.255D+04	455.0	132.1	119.6	1.069D-03
44	3	0.7437	1.881D+04	4391.	0.0	1.305D+07	2.321D+04	482.7	132.1	119.6	1.069D-03
45	3	0.7610	1.880D+04	4291.	0.0	1.305D+07	2.385D+04	513.2	132.1	119.6	1.069D-03
46	3	0.7777	1.879D+04	4391.	0.0	1.305D+07	2.449D+04	547.2	132.1	119.6	1.069D-03
47	3	0.7939	1.878D+04	4391.	0.0	1.305D+07	2.512D+04	585.1	132.1	119.6	1.069D-03
48	3	0.8096	1.878D+04	4391.	0.0	1.305D+07	2.574D+04	627.6	132.1	119.6	1.069D-03
49	3	0.8247	1.877D+04	4391.	0.0	1.305D+07	2.635D+04	675.6	132.1	119.6	1.069D-03
50	3	0.8392	1.876D+04	4391.	0.0	1.305D+07	2.696D+04	730.2	132.1	119.6	1.069D-03

51	3	0.8532	1.875D+04	4391.	0.0	1.305D+07	2.757D+04	792.5	132.1	119.6	1.069D-03
52	3	0.8666	1.875D+04	4391.	0.0	1.305D+07	2.818D+04	864.2	132.1	119.6	1.069D-03
53	5	0.8860	1.874D+04	110.1	8.453D+06	8.365D+06	2.979D+04	990.7	760.5	119.6	1.069D-03
54	5	0.9801	1.872D+04	78.23	3.581D+06	9.106D+06	2.859D+04	5635.	800.0	134.9	1.070D-03
55	5	0.9809	1.872D+04	77.40	3.316D+06	9.496D+06	3.139D+04	5881.	814.1	170.7	1.070D-03
56	5	0.9818	1.872D+04	70.53	1.920D+06	7.875D+06	3.352D+04	6146.	702.4	196.5	1.070D-03
57	5	0.9824	1.871D+04	70.07	1.827D+06	7.908D+06	3.433D+04	6341.	702.6	204.4	1.070D-03
58	5	0.9830	1.871D+04	69.43	1.746D+06	7.987D+06	3.582D+04	6533.	707.9	221.8	1.070D-03
59	5	0.9835	1.871D+04	68.72	1.678D+06	8.078D+06	3.751D+04	6727.	715.3	241.7	1.070D-03
60	5	0.9840	1.871D+04	67.96	1.618D+06	8.167D+06	3.933D+04	6922.	723.8	263.0	1.070D-03
61	5	0.9845	1.871D+04	67.12	1.567D+06	8.248D+06	4.125D+04	7117.	733.3	285.4	1.070D-03
62	5	0.9849	1.870D+04	66.18	1.521D+06	8.319D+06	4.329D+04	7312.	743.5	309.1	1.070D-03
63	5	0.9853	1.870D+04	65.15	1.483D+06	8.375D+06	4.544D+04	7505.	754.6	334.0	1.070D-03
64	5	0.9857	1.870D+04	64.00	1.450D+06	8.416D+06	4.770D+04	7697.	766.5	360.0	1.069D-03
65	5	0.9861	1.870D+04	62.73	1.423D+06	8.437D+06	5.007D+04	7885.	779.2	387.4	1.069D-03
66	5	0.9865	1.869D+04	61.33	1.401D+06	8.437D+06	5.257D+04	8070.	792.7	416.0	1.069D-03
67	5	0.9868	1.869D+04	59.80	1.384D+06	8.414D+06	5.517D+04	8252.	807.1	445.8	1.069D-03
68	5	0.9871	1.869D+04	45.83	8.647D+05	5.530D+06	5.788D+04	8430.	705.2	476.7	1.069D-03
69	5	0.9873	1.869D+04	46.53	7.707D+05	5.357D+06	5.562D+04	8578.	672.3	443.8	1.069D-03
70	5	0.9876	1.869D+04	46.79	7.143D+05	5.241D+06	5.455D+04	8721.	653.7	426.7	1.069D-03
71	5	0.9878	1.869D+04	46.72	6.822D+05	5.172D+06	5.432D+04	8859.	645.4	420.7	1.069D-03
72	5	0.9880	1.869D+04	46.32	6.646D+05	5.123D+06	5.471D+04	8994.	643.9	422.6	1.069D-03
73	5	0.9882	1.868D+04	45.61	6.549D+05	5.074D+06	5.554D+04	9127.	646.6	430.1	1.069D-03
74	5	0.9883	1.868D+04	44.65	6.496D+05	5.014D+06	5.666D+04	9258.	651.9	441.3	1.069D-03
75	5	0.9885	1.868D+04	43.51	6.470D+05	4.942D+06	5.797D+04	9387.	658.6	454.9	1.069D-03
76	5	0.9887	1.868D+04	42.26	6.458D+05	4.858D+06	5.940D+04	9514.	666.2	469.8	1.069D-03
77	5	0.9889	1.868D+04	40.93	6.457D+05	4.764D+06	6.090D+04	9640.	674.2	485.5	1.069D-03
78	5	0.9890	1.867D+04	22.33	4.059D+05	2.050D+06	6.244D+04	9764.	581.2	501.6	1.069D-03
79	5	0.9891	1.867D+04	24.09	3.311D+05	2.020D+06	5.817D+04	9875.	529.1	446.1	1.069D-03
80	5	0.9893	1.867D+04	27.01	2.867D+05	2.118D+06	5.478D+04	9982.	493.2	401.9	1.069D-03
81	5	0.9894	1.867D+04	30.12	2.643D+05	2.272D+06	5.248D+04	1.008D+04	472.8	371.5	1.069D-03
82	5	0.9895	1.867D+04	32.42	2.547D+05	2.406D+06	5.125D+04	1.018D+04	463.8	354.5	1.069D-03
83	5	0.9896	1.867D+04	33.65	2.515D+05	2.492D+06	5.085D+04	1.028D+04	461.6	347.7	1.069D-03
84	5	0.9897	1.867D+04	34.03	2.513D+05	2.536D+06	5.098D+04	1.037D+04	463.2	347.5	1.069D-03
85	5	0.9898	1.867D+04	33.83	2.521D+05	2.544D+06	5.143D+04	1.047D+04	466.4	351.1	1.069D-03
86	5	0.9899	1.867D+04	33.32	2.532D+05	2.533D+06	5.204D+04	1.056D+04	470.3	356.7	1.069D-03
87	5	0.9900	1.867D+04	32.66	2.543D+05	2.509D+06	5.273D+04	1.066D+04	474.5	363.1	1.069D-03
88	5	0.9901	1.866D+04	31.93	2.554D+05	2.479D+06	5.344D+04	1.075D+04	478.8	369.9	1.069D-03
89	5	0.9902	1.866D+04	31.19	2.564D+05	2.446D+06	5.416D+04	1.084D+04	483.0	376.8	1.069D-03
90	5	0.9903	1.866D+04	30.44	2.573D+05	2.410D+06	5.489D+04	1.093D+04	487.2	383.6	1.069D-03
91	5	0.9904	1.866D+04	29.80	2.583D+05	2.382D+06	5.557D+04	1.103D+04	491.3	389.9	1.069D-03

NAME(1)= 350

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPON	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)		---->	<---	(KG/M**2) AT CORE FLOW		--->
350.00	4.000	4.000	2.066	1.934	1.064	2.938	0.0	0.734	0.0	0.0	0.0	13207.5	1273.1	0.0	3083.7	8583.3
350.50	4.000	4.000	2.066	1.934	1.064	2.938	0.0	0.734	0.0	0.0	0.0	13226.4	1273.1	0.0	3088.7	8597.2
351.00	4.000	4.000	2.066	1.934	1.064	2.938	0.0	0.734	0.0	0.0	0.0	13245.3	1273.1	0.0	3093.7	8611.1
351.50	4.000	4.000	2.066	1.934	1.064	2.938	0.0	0.734	0.0	0.0	0.0	13264.2	1273.0	0.0	3098.7	8624.9
352.00	4.000	4.000	2.066	1.934	1.064	2.938	0.0	0.734	0.0	0.0	0.0	13283.0	1273.0	0.0	3103.8	8638.8
352.50	4.000	4.000	2.066	1.934	1.064	2.938	0.0	0.735	0.0	0.0	0.0	13301.9	1273.0	0.0	3108.8	8652.6
353.00	4.000	4.000	2.066	1.934	1.064	2.938	0.0	0.735	0.0	0.0	0.0	13320.8	1273.0	0.0	3113.8	8666.5
353.50	4.000	4.000	2.066	1.934	1.064	2.938	0.0	0.735	0.0	0.0	0.0	13339.6	1273.0	0.0	3118.8	8680.4
354.00	4.000	4.000	2.066	1.934	1.064	2.939	0.0	0.735	0.0	0.0	0.0	13358.5	1273.0	0.0	3123.9	8694.2
354.50	4.000	4.000	2.066	1.934	1.064	2.939	0.0	0.735	0.0	0.0	0.0	13377.4	1273.0	0.0	3128.9	8708.1
355.00	4.000	4.000	2.066	1.934	1.064	2.939	0.0	0.735	0.0	0.0	0.0	13396.2	1273.0	0.0	3133.9	8721.9
355.50	4.000	4.000	2.066	1.934	1.064	2.939	0.0	0.735	0.0	0.0	0.0	13415.1	1272.9	0.0	3138.9	8735.8
356.00	4.000	4.000	2.066	1.934	1.064	2.940	0.0	0.735	0.0	0.0	0.0	13434.0	1272.9	0.0	3143.9	8749.7
356.50	4.000	4.000	2.066	1.934	1.064	2.940	0.0	0.735	0.0	0.0	0.0	13452.8	1272.9	0.0	3149.0	8763.5
357.00	4.000	4.000	2.066	1.934	1.064	2.941	0.0	0.735	0.0	0.0	0.0	13471.7	1272.9	0.0	3154.0	8777.4
357.50	4.000	4.000	2.066	1.934	0.961	0.008	0.0	0.002	0.0	0.0	0.0	13490.6	1264.0	0.0	3158.7	8783.0
358.00	4.000	4.000	2.066	1.934	1.064	1.775	0.0	0.444	0.0	0.0	0.0	13509.4	1274.4	0.0	3163.5	8786.6
358.50	4.000	4.000	2.066	1.934	1.077	2.900	0.0	0.725	0.0	0.0	0.0	13528.3	1275.6	0.0	3168.6	8799.2
359.00	4.000	4.000	2.066	1.934	1.077	2.922	0.0	0.731	0.0	0.0	0.0	13547.2	1275.6	0.0	3173.7	8813.0
359.50	4.000	4.000	2.066	1.934	1.077	2.923	0.0	0.731	0.0	0.0	0.0	13566.0	1275.6	0.0	3178.8	8826.8
360.00	4.000	4.000	2.066	1.934	1.077	2.923	0.0	0.731	0.0	0.0	0.0	13584.9	1275.6	0.0	3183.8	8840.6
360.50	4.000	4.000	2.066	1.934	1.077	2.923	0.0	0.731	0.0	0.0	0.0	13603.8	1275.6	0.0	3188.9	8854.3
361.00	4.000	4.000	2.066	1.934	1.076	2.924	0.0	0.731	0.0	0.0	0.0	13622.6	1275.6	0.0	3194.0	8868.1
361.50	4.000	4.000	2.066	1.934	1.076	2.924	0.0	0.731	0.0	0.0	0.0	13641.5	1275.6	0.0	3199.1	8881.9
362.00	4.000	4.000	2.066	1.934	1.076	2.924	0.0	0.731	0.0	0.0	0.0	13660.4	1275.6	0.0	3204.2	8895.7
362.50	4.000	4.000	2.066	1.934	1.076	2.924	0.0	0.731	0.0	0.0	0.0	13679.2	1275.6	0.0	3209.2	8909.5
363.00	4.000	4.000	2.066	1.934	1.076	2.924	0.0	0.731	0.0	0.0	0.0	13698.1	1275.6	0.0	3214.3	8923.3
363.50	4.000	4.000	2.066	1.934	1.076	2.925	0.0	0.731	0.0	0.0	0.0	13717.0	1275.6	0.0	3219.4	8937.1
364.00	4.000	4.000	2.066	1.934	1.076	2.925	0.0	0.731	0.0	0.0	0.0	13735.8	1275.6	0.0	3224.5	8950.9
364.50	4.000	4.000	2.066	1.934	1.076	2.925	0.0	0.731	0.0	0.0	0.0	13754.7	1275.6	0.0	3229.5	8964.7
365.00	4.000	4.000	2.066	1.934	1.076	2.925	0.0	0.731	0.0	0.0	0.0	13773.6	1275.6	0.0	3234.6	8978.5
365.50	4.000	4.000	2.066	1.934	1.076	2.925	0.0	0.731	0.0	0.0	0.0	13792.5	1275.6	0.0	3239.7	8992.3
366.00	4.000	4.000	2.066	1.934	1.076	2.925	0.0	0.731	0.0	0.0	0.0	13811.3	1275.6	0.0	3244.8	9006.1
366.50	4.000	4.000	2.066	1.934	1.076	2.925	0.0	0.731	0.0	0.0	0.0	13830.2	1275.6	0.0	3249.8	9019.9
367.00	4.000	4.000	2.066	1.934	1.076	2.925	0.0	0.731	0.0	0.0	0.0	13849.1	1275.6	0.0	3254.9	9033.7
367.50	4.000	4.000	2.066	1.934	1.076	2.926	0.0	0.731	0.0	0.0	0.0	13867.9	1275.6	0.0	3260.0	9047.5
368.00	4.000	4.000	2.066	1.934	1.076	2.926	0.0	0.731	0.0	0.0	0.0	13886.8	1275.5	0.0	3265.1	9061.3
368.50	4.000	4.000	2.066	1.934	1.076	2.926	0.0	0.731	0.0	0.0	0.0	13905.7	1275.5	0.0	3270.1	9075.1
369.00	4.000	4.000	2.066	1.934	1.076	2.926	0.0	0.731	0.0	0.0	0.0	13924.5	1275.5	0.0	3275.2	9088.9
369.50	4.000	4.000	2.066	1.934	1.076	2.926	0.0	0.731	0.0	0.0	0.0	13943.4	1275.5	0.0	3280.3	9102.7
370.00	4.000	4.000	2.066	1.934	1.076	2.926	0.0	0.732	0.0	0.0	0.0	13962.3	1275.5	0.0	3285.4	9116.5
370.50	4.000	4.000	2.066	1.934	1.075	2.926	0.0	0.732	0.0	0.0	0.0	13981.1	1275.5	0.0	3290.4	9130.3
371.00	4.000	4.000	2.066	1.934	1.075	2.926	0.0	0.732	0.0	0.0	0.0	14000.0	1275.5	0.0	3295.5	9144.1
371.50	4.000	4.000	2.066	1.934	1.075	2.926	0.0	0.732	0.0	0.0	0.0	14018.9	1275.5	0.0	3300.6	9157.9
372.00	4.000	4.000	2.066	1.934	1.075	2.926	0.0	0.732	0.0	0.0	0.0	14037.7	1275.5	0.0	3305.6	9171.7
372.50	4.000	4.000	2.066	1.934	1.075	2.927	0.0	0.732	0.0	0.0	0.0	14056.6	1275.5	0.0	3310.7	9185.5
373.00	4.000	4.000	2.066	1.934	1.075	2.927	0.0	0.732	0.0	0.0	0.0	14075.5	1275.5	0.0	3315.8	9199.3
373.50	4.000	4.000	2.066	1.934	1.075	2.927	0.0	0.732	0.0	0.0	0.0	14094.3	1275.5	0.0	3320.9	9213.1
374.00	4.000	4.000	2.066	1.934	1.075	2.927	0.0	0.732	0.0	0.0	0.0	14113.2	1275.5	0.0	3325.9	9226.9
374.50	4.000	4.000	2.066	1.934	1.075	2.927	0.0	0.732	0.0	0.0	0.0	14132.1	1275.4	0.0	3331.0	9240.7

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>	<---	(M.AQ)		---->	<---	(KG/M**2) AT CORE FLOW			--->
375.00	4.000	4.000	2.066	1.934	1.075	2.927	0.0	0.732	0.0	0.0	0.0	14150.9	1275.4	0.0	3336.1	9254.5
375.50	4.000	4.000	2.066	1.934	1.075	2.927	0.0	0.732	0.0	0.0	0.0	14169.8	1275.4	0.0	3341.1	9268.3
376.00	4.000	4.000	2.066	1.934	1.075	2.927	0.0	0.732	0.0	0.0	0.0	14188.7	1275.4	0.0	3346.2	9282.1
376.50	4.000	4.000	2.066	1.934	1.075	2.928	0.0	0.732	0.0	0.0	0.0	14207.5	1275.4	0.0	3351.3	9296.0
377.00	4.000	4.000	2.066	1.934	1.075	2.928	0.0	0.732	0.0	0.0	0.0	14226.4	1275.4	0.0	3356.4	9309.8
377.50	4.000	4.000	2.066	1.934	1.075	2.928	0.0	0.732	0.0	0.0	0.0	14245.3	1275.4	0.0	3361.4	9323.6
378.00	4.000	4.000	2.066	1.934	1.075	2.929	0.0	0.732	0.0	0.0	0.0	14264.2	1275.4	0.0	3366.5	9337.4
378.50	4.000	4.000	2.066	1.934	1.075	2.929	0.0	0.732	0.0	0.0	0.0	14283.0	1275.3	0.0	3371.6	9351.2
379.00	4.000	4.000	2.066	1.934	1.075	2.930	0.0	0.733	0.0	0.0	0.0	14301.9	1275.3	0.0	3376.6	9365.0
379.50	4.000	4.000	2.066	1.934	1.018	0.131	0.0	0.033	0.0	0.0	0.0	14320.8	1270.7	0.0	3381.4	9367.9
380.00	4.000	4.000	2.066	1.934	1.086	2.493	0.0	0.623	0.0	0.0	0.0	14339.6	1277.5	0.0	3386.4	9375.0
380.50	4.000	4.000	2.066	1.934	1.090	2.907	0.0	0.727	0.0	0.0	0.0	14358.5	1277.8	0.0	3391.6	9388.5
381.00	4.000	4.000	2.066	1.934	1.089	2.910	0.0	0.727	0.0	0.0	0.0	14377.4	1277.8	0.0	3396.7	9402.2
381.50	4.000	4.000	2.066	1.934	1.089	2.910	0.0	0.728	0.0	0.0	0.0	14396.2	1277.8	0.0	3401.9	9415.9
382.00	4.000	4.000	2.066	1.934	1.089	2.910	0.0	0.728	0.0	0.0	0.0	14415.1	1277.8	0.0	3407.0	9429.6
382.50	4.000	4.000	2.066	1.934	1.089	2.911	0.0	0.728	0.0	0.0	0.0	14434.0	1277.8	0.0	3412.1	9443.4
383.00	4.000	4.000	2.066	1.934	1.089	2.911	0.0	0.728	0.0	0.0	0.0	14452.8	1277.8	0.0	3417.3	9457.1
383.50	4.000	4.000	2.066	1.934	1.089	2.911	0.0	0.728	0.0	0.0	0.0	14471.7	1277.8	0.0	3422.4	9470.8
384.00	4.000	4.000	2.066	1.934	1.089	2.911	0.0	0.728	0.0	0.0	0.0	14490.6	1277.8	0.0	3427.5	9484.6
384.50	4.000	4.000	2.066	1.934	1.089	2.912	0.0	0.728	0.0	0.0	0.0	14509.4	1277.8	0.0	3432.7	9498.3
385.00	4.000	4.000	2.066	1.934	1.089	2.912	0.0	0.728	0.0	0.0	0.0	14528.3	1277.8	0.0	3437.8	9512.0
385.50	4.000	4.000	2.066	1.934	1.089	2.912	0.0	0.728	0.0	0.0	0.0	14547.2	1277.8	0.0	3442.9	9525.8
386.00	4.000	4.000	2.066	1.934	1.089	2.912	0.0	0.728	0.0	0.0	0.0	14566.0	1277.8	0.0	3448.1	9539.5
386.50	4.000	4.000	2.066	1.934	1.088	2.912	0.0	0.728	0.0	0.0	0.0	14584.9	1277.7	0.0	3453.2	9553.2
387.00	4.000	4.000	2.066	1.934	1.088	2.912	0.0	0.728	0.0	0.0	0.0	14603.8	1277.7	0.0	3458.4	9567.0
387.50	4.000	4.000	2.066	1.934	1.088	2.912	0.0	0.728	0.0	0.0	0.0	14622.6	1277.7	0.0	3463.5	9580.7
388.00	4.000	4.000	2.066	1.934	1.088	2.913	0.0	0.728	0.0	0.0	0.0	14641.5	1277.7	0.0	3468.6	9594.5
388.50	4.000	4.000	2.066	1.934	1.088	2.913	0.0	0.728	0.0	0.0	0.0	14660.4	1277.7	0.0	3473.8	9608.2
389.00	4.000	4.000	2.066	1.934	1.088	2.913	0.0	0.728	0.0	0.0	0.0	14679.2	1277.7	0.0	3478.9	9621.9
389.50	4.000	4.000	2.066	1.934	1.088	2.913	0.0	0.728	0.0	0.0	0.0	14698.1	1277.7	0.0	3484.0	9635.7
390.00	4.000	4.000	2.066	1.934	1.088	2.913	0.0	0.728	0.0	0.0	0.0	14717.0	1277.7	0.0	3489.1	9649.4
390.50	4.000	4.000	2.066	1.934	1.088	2.913	0.0	0.728	0.0	0.0	0.0	14735.8	1277.7	0.0	3494.3	9663.2
391.00	4.000	4.000	2.066	1.934	1.088	2.913	0.0	0.728	0.0	0.0	0.0	14754.7	1277.7	0.0	3499.4	9676.9
391.50	4.000	4.000	2.066	1.934	1.088	2.913	0.0	0.728	0.0	0.0	0.0	14773.6	1277.7	0.0	3504.5	9690.6
392.00	4.000	4.000	2.066	1.934	1.088	2.914	0.0	0.728	0.0	0.0	0.0	14792.5	1277.7	0.0	3509.7	9704.4
392.50	4.000	4.000	2.066	1.934	1.088	2.914	0.0	0.728	0.0	0.0	0.0	14811.3	1277.7	0.0	3514.8	9718.1
393.00	4.000	4.000	2.066	1.934	1.088	2.914	0.0	0.728	0.0	0.0	0.0	14830.2	1277.7	0.0	3519.9	9731.9
393.50	4.000	4.000	2.066	1.934	1.088	2.914	0.0	0.728	0.0	0.0	0.0	14849.1	1277.7	0.0	3525.1	9745.6
394.00	4.000	4.000	2.066	1.934	1.088	2.914	0.0	0.728	0.0	0.0	0.0	14867.9	1277.7	0.0	3530.2	9759.4
394.50	4.000	4.000	2.066	1.934	1.087	2.914	0.0	0.729	0.0	0.0	0.0	14886.8	1277.7	0.0	3535.3	9773.1
395.00	4.000	4.000	2.066	1.934	1.087	2.914	0.0	0.729	0.0	0.0	0.0	14905.7	1277.7	0.0	3540.5	9786.9
395.50	4.000	4.000	2.066	1.934	1.087	2.914	0.0	0.729	0.0	0.0	0.0	14924.5	1277.6	0.0	3545.6	9800.6
396.00	4.000	4.000	2.066	1.934	1.087	2.914	0.0	0.729	0.0	0.0	0.0	14943.4	1277.6	0.0	3550.7	9814.3
396.50	4.000	4.000	2.066	1.934	1.087	2.915	0.0	0.729	0.0	0.0	0.0	14962.3	1277.6	0.0	3555.8	9828.1
397.00	4.000	4.000	2.066	1.934	1.087	2.915	0.0	0.729	0.0	0.0	0.0	14981.1	1277.6	0.0	3561.0	9841.8
397.50	4.000	4.000	2.066	1.934	1.087	2.915	0.0	0.729	0.0	0.0	0.0	15000.0	1277.6	0.0	3566.1	9855.6
398.00	4.000	4.000	2.066	1.934	1.087	2.915	0.0	0.729	0.0	0.0	0.0	15018.9	1277.6	0.0	3571.2	9869.3
398.50	4.000	4.000	2.066	1.934	1.087	2.915	0.0	0.729	0.0	0.0	0.0	15037.7	1277.6	0.0	3576.4	9883.1
399.00	4.000	4.000	2.066	1.934	1.087	2.915	0.0	0.729	0.0	0.0	0.0	15056.6	1277.6	0.0	3581.5	9896.8
399.50	4.000	4.000	2.066	1.934	1.087	2.916	0.0	0.729	0.0	0.0	0.0	15075.5	1277.6	0.0	3586.6	9910.6

*** TIME = 400.00 (SEC) **** INLET AND OUTLET CONDITION ****

TQN2(C)	ZB2(M)	TQN5(C)	ZB5(M)	DD(IB4)(MM)	DD(N1)(MM)	DP(M)	CRATIO
770.14	2.1573	0.0	3.6400	0.72841	2.2873	1.4241	0.72898

P, RL, RGST 2.0000D+04 7.4225D-06 8.7246D-09

I	IP	AG(I)	PC(I)	HT(I)	HR(I)	HCV(I)	UG(I)	UL(I)	TW(I)	TL/TG(I)	G(I)
1	1	0.0	2.000D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	100.0	1.069D-03
2	1	0.0	1.996D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.0	1.069D-03
3	1	0.0	1.992D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.9	1.069D-03
4	1	0.0	1.989D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	102.9	1.069D-03
5	1	0.0	1.985D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	103.8	1.069D-03
6	1	0.0	1.981D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	104.8	1.069D-03
7	1	0.0	1.977D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	105.8	1.069D-03
8	1	0.0	1.974D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	106.7	1.069D-03
9	1	0.0	1.970D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	107.7	1.069D-03
10	1	0.0	1.966D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	108.6	1.069D-03
11	1	0.0	1.962D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	109.6	1.069D-03
12	1	0.0	1.958D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	110.6	1.069D-03
13	1	0.0	1.955D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	111.5	1.069D-03
14	1	0.0	1.951D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	112.5	1.069D-03
15	1	0.0	1.947D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	114.4	1.069D-03
16	1	0.0	1.943D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	116.2	1.069D-03
17	1	0.0	1.940D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	118.1	1.069D-03
18	3	0.0119	1.936D+04	2564.	0.0	6.368D+06	1408.	145.7	130.0	120.0	1.069D-03
19	3	0.1161	1.932D+04	2564.	0.0	6.368D+06	3907.	162.3	130.0	119.6	1.069D-03
20	3	0.1818	1.929D+04	2564.	0.0	6.368D+06	4896.	174.7	130.0	119.6	1.069D-03
21	3	0.2205	1.926D+04	2564.	0.0	6.368D+06	6017.	182.7	130.0	119.6	1.069D-03
22	3	0.2529	1.923D+04	2564.	0.0	6.368D+06	6973.	190.0	130.0	119.6	1.069D-03
23	3	0.2812	1.920D+04	2564.	0.0	6.368D+06	7824.	196.7	130.0	119.6	1.069D-03
24	3	0.3066	1.917D+04	2564.	0.0	6.368D+06	8598.	203.2	130.0	119.6	1.069D-03
25	3	0.3299	1.915D+04	3411.	0.0	9.317D+06	9315.	209.5	131.1	119.6	1.069D-03
26	3	0.3610	1.912D+04	3411.	0.0	9.317D+06	1.028D+04	218.5	131.1	119.6	1.069D-03
27	3	0.3893	1.910D+04	3411.	0.0	9.317D+06	1.118D+04	227.4	131.1	119.6	1.069D-03
28	3	0.4155	1.907D+04	3411.	0.0	9.317D+06	1.201D+04	236.3	131.1	119.6	1.069D-03
29	3	0.4400	1.905D+04	3411.	0.0	9.317D+06	1.279D+04	245.3	131.1	119.6	1.069D-03
30	3	0.4629	1.903D+04	3411.	0.0	9.317D+06	1.354D+04	254.4	131.1	119.6	1.069D-03
31	3	0.4847	1.901D+04	3411.	0.0	9.317D+06	1.425D+04	263.7	131.1	119.6	1.069D-03
32	3	0.5054	1.899D+04	3411.	0.0	9.317D+06	1.493D+04	273.2	131.1	119.6	1.069D-03
33	3	0.5251	1.897D+04	3411.	0.0	9.317D+06	1.559D+04	283.0	131.1	119.6	1.069D-03
34	3	0.5441	1.895D+04	3411.	0.0	9.317D+06	1.622D+04	293.1	131.1	119.6	1.069D-03
35	3	0.5622	1.894D+04	3411.	0.0	9.317D+06	1.683D+04	303.5	131.1	119.6	1.069D-03
36	3	0.5798	1.892D+04	4391.	0.0	1.305D+07	1.742D+04	314.4	132.1	119.6	1.069D-03
37	3	0.6023	1.890D+04	4391.	0.0	1.305D+07	1.822D+04	330.4	132.1	119.6	1.069D-03
38	3	0.6258	1.889D+04	4391.	0.0	1.305D+07	1.900D+04	347.5	132.1	119.6	1.069D-03
39	3	0.6474	1.887D+04	4391.	0.0	1.305D+07	1.975D+04	365.7	132.1	119.6	1.069D-03
40	3	0.6681	1.886D+04	4391.	0.0	1.305D+07	2.048D+04	385.4	132.1	119.6	1.069D-03
41	3	0.6880	1.885D+04	4391.	0.0	1.305D+07	2.118D+04	406.6	132.1	119.6	1.069D-03
42	3	0.7072	1.883D+04	4391.	0.0	1.305D+07	2.187D+04	429.7	132.1	119.6	1.069D-03
43	3	0.7258	1.882D+04	4391.	0.0	1.305D+07	2.255D+04	455.0	132.1	119.6	1.069D-03
44	3	0.7437	1.881D+04	4391.	0.0	1.305D+07	2.321D+04	482.7	132.1	119.6	1.069D-03
45	3	0.7610	1.880D+04	4391.	0.0	1.305D+07	2.385D+04	513.2	132.1	119.6	1.069D-03
46	3	0.7777	1.879D+04	4391.	0.0	1.305D+07	2.449D+04	547.2	132.1	119.6	1.069D-03
47	3	0.7939	1.878D+04	4391.	0.0	1.305D+07	2.512D+04	585.1	132.1	119.6	1.069D-03
48	3	0.8096	1.878D+04	4391.	0.0	1.305D+07	2.574D+04	627.6	132.1	119.6	1.069D-03
49	3	0.8247	1.877D+04	4391.	0.0	1.305D+07	2.635D+04	675.6	132.1	119.6	1.069D-03
50	3	0.8392	1.876D+04	4391.	0.0	1.305D+07	2.696D+04	730.2	132.1	119.6	1.069D-03

51	3	0.8532	1.875D+04	4391.	0.0	1.305D+07	2.757D+04	792.5	132.1	119.6	1.069D-03
52	3	0.8666	1.875D+04	4391.	0.0	1.305D+07	2.818D+04	864.2	132.1	119.6	1.069D-03
53	3	0.8793	1.874D+04	4391.	0.0	1.305D+07	2.878D+04	946.8	132.1	119.6	1.069D-03
54	3	0.8914	1.874D+04	4391.	0.0	1.305D+07	2.940D+04	1043.	132.1	119.6	1.069D-03
55	5	0.9134	1.873D+04	114.8	8.905D+06	8.998D+06	3.086D+04	1281.	773.8	119.6	1.069D-03
56	5	0.9850	1.871D+04	71.92	1.792D+06	8.123D+06	3.037D+04	7344.	698.0	134.9	1.070D-03
57	5	0.9853	1.871D+04	71.37	1.670D+06	8.194D+06	3.231D+04	7477.	699.5	158.9	1.070D-03
58	5	0.9856	1.871D+04	70.97	1.598D+06	8.296D+06	3.395D+04	7622.	704.6	178.7	1.070D-03
59	5	0.9859	1.871D+04	70.54	1.539D+06	8.407D+06	3.565D+04	7775.	711.2	198.9	1.070D-03
60	5	0.9862	1.871D+04	70.06	1.488D+06	8.518D+06	3.743D+04	7934.	719.0	219.8	1.070D-03
61	5	0.9865	1.870D+04	69.50	1.444D+06	8.625D+06	3.930D+04	8098.	727.6	241.6	1.070D-03
62	5	0.9868	1.870D+04	68.84	1.406D+06	8.724D+06	4.128D+04	8264.	737.1	264.5	1.070D-03
63	5	0.9871	1.870D+04	68.09	1.373D+06	8.816D+06	4.337D+04	8432.	747.5	288.6	1.070D-03
64	5	0.9874	1.870D+04	67.23	1.345D+06	8.897D+06	4.557D+04	8601.	758.9	313.9	1.070D-03
65	5	0.9876	1.869D+04	66.25	1.323D+06	8.966D+06	4.790D+04	8770.	771.3	340.5	1.070D-03
66	5	0.9879	1.869D+04	65.13	1.306D+06	9.020D+06	5.037D+04	8937.	784.9	368.6	1.070D-03
67	5	0.9881	1.869D+04	63.88	1.293D+06	9.056D+06	5.297D+04	9103.	799.5	398.1	1.070D-03
68	5	0.9884	1.869D+04	51.44	7.995D+05	6.262D+06	5.572D+04	9267.	695.8	429.2	1.070D-03
69	5	0.9885	1.869D+04	51.91	7.244D+05	6.057D+06	5.388D+04	9404.	667.9	403.1	1.070D-03
70	5	0.9887	1.869D+04	51.65	6.775D+05	5.887D+06	5.335D+04	9535.	653.0	393.7	1.070D-03
71	5	0.9889	1.868D+04	51.07	6.501D+05	5.769D+06	5.359D+04	9662.	647.2	394.0	1.070D-03
72	5	0.9890	1.868D+04	50.27	6.351D+05	5.686D+06	5.434D+04	9786.	647.3	400.6	1.070D-03
73	5	0.9892	1.868D+04	49.28	6.277D+05	5.618D+06	5.543D+04	9909.	651.4	411.5	1.070D-03
74	5	0.9893	1.868D+04	48.14	6.249D+05	5.551D+06	5.678D+04	1.003D+04	658.0	425.5	1.070D-03
75	5	0.9895	1.868D+04	46.86	6.250D+05	5.478D+06	5.830D+04	1.015D+04	666.1	441.5	1.070D-03
76	5	0.9896	1.868D+04	45.48	6.268D+05	5.396D+06	5.994D+04	1.027D+04	675.3	458.9	1.070D-03
77	5	0.9897	1.867D+04	44.03	6.300D+05	5.304D+06	6.167D+04	1.039D+04	685.1	477.3	1.070D-03
78	5	0.9899	1.867D+04	26.51	4.047D+05	2.604D+06	6.344D+04	1.050D+04	595.9	496.1	1.070D-03
79	5	0.9900	1.867D+04	27.72	3.356D+05	2.488D+06	5.958D+04	1.061D+04	547.1	446.9	1.070D-03
80	5	0.9901	1.867D+04	29.54	2.911D+05	2.469D+06	5.653D+04	1.071D+04	511.7	408.0	1.070D-03
81	5	0.9902	1.867D+04	31.69	2.660D+05	2.530D+06	5.438D+04	1.080D+04	489.7	380.2	1.070D-03
82	5	0.9903	1.867D+04	33.48	2.539D+05	2.611D+06	5.315D+04	1.090D+04	478.7	363.5	1.070D-03
83	5	0.9904	1.867D+04	34.54	2.491D+05	2.676D+06	5.267D+04	1.099D+04	475.0	356.0	1.070D-03
84	5	0.9905	1.867D+04	34.90	2.481D+05	2.713D+06	5.275D+04	1.108D+04	475.6	355.2	1.070D-03
85	5	0.9905	1.867D+04	34.72	2.488D+05	2.722D+06	5.318D+04	1.117D+04	478.6	358.6	1.070D-03
86	5	0.9906	1.866D+04	34.21	2.503D+05	2.712D+06	5.381D+04	1.126D+04	482.8	364.4	1.070D-03
87	5	0.9907	1.866D+04	33.52	2.520D+05	2.687D+06	5.454D+04	1.135D+04	487.5	371.4	1.070D-03
88	5	0.9908	1.866D+04	32.74	2.538D+05	2.655D+06	5.534D+04	1.143D+04	492.4	379.0	1.070D-03
89	5	0.9909	1.866D+04	31.92	2.556D+05	2.618D+06	5.615D+04	1.152D+04	497.4	386.9	1.070D-03
90	5	0.9909	1.866D+04	31.08	2.573D+05	2.578D+06	5.697D+04	1.161D+04	502.3	394.8	1.070D-03
91	5	0.9910	1.866D+04	30.26	2.590D+05	2.536D+06	5.778D+04	1.170D+04	507.1	402.6	1.070D-03

NAME(1)= 400

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC)	AT CORE WATER STATE				------>		<---	(M.AQ)	---->	<---	(KG/M**2)	AT CORE FLOW		--->
400.00	4.000	4.000	2.066	1.934	1.087	2.916	0.0	0.729	0.0	0.0	0.0	15094.3	1277.6	0.0	3591.7	9924.4
400.50	4.000	4.000	2.066	1.934	1.087	2.916	0.0	0.729	0.0	0.0	0.0	15113.2	1277.5	0.0	3596.9	9938.1
401.00	4.000	4.000	2.066	1.934	1.087	2.917	0.0	0.729	0.0	0.0	0.0	15132.1	1277.5	0.0	3602.0	9951.9
401.50	4.000	4.000	2.066	1.934	1.087	2.918	0.0	0.730	0.0	0.0	0.0	15150.9	1277.5	0.0	3607.1	9965.6
402.00	4.000	4.000	2.066	1.934	1.086	2.449	0.0	0.612	0.0	0.0	0.0	15169.8	1278.6	0.0	3612.2	9978.3
402.50	4.000	4.000	2.066	1.934	1.099	2.831	0.0	0.708	0.0	0.0	0.0	15188.7	1279.9	0.0	3617.4	9990.7
403.00	4.000	4.000	2.066	1.934	1.099	2.902	0.0	0.725	0.0	0.0	0.0	15207.5	1279.9	0.0	3622.6	10004.4
403.50	4.000	4.000	2.066	1.934	1.099	2.902	0.0	0.726	0.0	0.0	0.0	15226.4	1279.9	0.0	3627.8	10018.1
404.00	4.000	4.000	2.066	1.934	1.099	2.903	0.0	0.726	0.0	0.0	0.0	15245.3	1279.9	0.0	3632.9	10031.7
404.50	4.000	4.000	2.066	1.934	1.099	2.903	0.0	0.726	0.0	0.0	0.0	15264.2	1279.9	0.0	3638.1	10045.4
405.00	4.000	4.000	2.066	1.934	1.099	2.903	0.0	0.726	0.0	0.0	0.0	15283.0	1279.9	0.0	3643.3	10059.1
405.50	4.000	4.000	2.066	1.934	1.099	2.903	0.0	0.726	0.0	0.0	0.0	15301.9	1279.9	0.0	3648.5	10072.8
406.00	4.000	4.000	2.066	1.934	1.099	2.903	0.0	0.726	0.0	0.0	0.0	15320.8	1279.9	0.0	3653.7	10086.5
406.50	4.000	4.000	2.066	1.934	1.099	2.903	0.0	0.726	0.0	0.0	0.0	15339.6	1279.9	0.0	3658.9	10100.2
407.00	4.000	4.000	2.066	1.934	1.099	2.903	0.0	0.726	0.0	0.0	0.0	15358.5	1279.8	0.0	3664.0	10113.9
407.50	4.000	4.000	2.066	1.934	1.099	2.903	0.0	0.726	0.0	0.0	0.0	15377.4	1279.8	0.0	3669.2	10127.6
408.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15396.2	1279.8	0.0	3674.4	10141.3
408.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15415.1	1279.8	0.0	3679.6	10155.0
409.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15434.0	1279.8	0.0	3684.8	10168.7
409.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15452.8	1279.8	0.0	3689.9	10182.4
410.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15471.7	1279.8	0.0	3695.1	10196.1
410.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15490.6	1279.8	0.0	3700.3	10209.8
411.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15509.4	1279.8	0.0	3705.5	10223.5
411.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15528.3	1279.8	0.0	3710.7	10237.2
412.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15547.2	1279.7	0.0	3715.9	10250.9
412.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15566.0	1279.7	0.0	3721.0	10264.6
413.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15584.9	1279.7	0.0	3726.2	10278.3
413.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15603.8	1279.7	0.0	3731.4	10292.0
414.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15622.6	1279.7	0.0	3736.6	10305.7
414.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15641.5	1279.7	0.0	3741.8	10319.4
415.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15660.4	1279.7	0.0	3747.0	10333.1
415.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15679.2	1279.7	0.0	3752.1	10346.8
416.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15698.1	1279.6	0.0	3757.3	10360.5
416.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15717.0	1279.6	0.0	3762.5	10374.2
417.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15735.8	1279.6	0.0	3767.7	10387.8
417.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15754.7	1279.6	0.0	3772.9	10401.5
418.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15773.6	1279.6	0.0	3778.0	10415.2
418.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15792.5	1279.6	0.0	3783.2	10428.9
419.00	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15811.3	1279.6	0.0	3788.4	10442.6
419.50	4.000	4.000	2.066	1.934	1.099	2.904	0.0	0.726	0.0	0.0	0.0	15830.2	1279.6	0.0	3793.6	10456.3
420.00	4.000	4.000	2.066	1.934	1.099	2.905	0.0	0.726	0.0	0.0	0.0	15849.1	1279.5	0.0	3798.8	10470.0
420.50	4.000	4.000	2.066	1.934	1.099	2.905	0.0	0.726	0.0	0.0	0.0	15867.9	1279.5	0.0	3804.0	10483.7
421.00	4.000	4.000	2.066	1.934	1.099	2.905	0.0	0.726	0.0	0.0	0.0	15886.8	1279.5	0.0	3809.1	10497.4
421.50	4.000	4.000	2.066	1.934	1.099	2.906	0.0	0.727	0.0	0.0	0.0	15905.7	1279.5	0.0	3814.3	10511.2
422.00	4.000	4.000	2.066	1.934	1.100	2.435	0.0	0.609	0.0	0.0	0.0	15924.5	1280.7	0.0	3819.5	10523.7
422.50	4.000	4.000	2.066	1.934	1.110	2.845	0.0	0.711	0.0	0.0	0.0	15943.4	1281.7	0.0	3824.7	10536.3
423.00	4.000	4.000	2.066	1.934	1.110	2.889	0.0	0.722	0.0	0.0	0.0	15962.3	1281.7	0.0	3830.0	10549.9
423.50	4.000	4.000	2.066	1.934	1.110	2.890	0.0	0.722	0.0	0.0	0.0	15981.1	1281.7	0.0	3835.2	10563.5
424.00	4.000	4.000	2.066	1.934	1.110	2.890	0.0	0.723	0.0	0.0	0.0	16000.0	1281.7	0.0	3840.4	10577.1
424.50	4.000	4.000	2.066	1.934	1.110	2.890	0.0	0.723	0.0	0.0	0.0	16018.9	1281.7	0.0	3845.7	10590.8

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLOP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>	<---	(M.AQ)		---->	<---	(KG/M**2) AT CORE FLOW		--->	
425.00	4.000	4.000	2.066	1.934	1.110	2.891	0.0	0.723	0.0	0.0	0.0	16037.7	1281.7	0.0	3850.9	10604.4
425.50	4.000	4.000	2.066	1.934	1.110	2.891	0.0	0.723	0.0	0.0	0.0	16056.6	1281.7	0.0	3856.1	10618.0
426.00	4.000	4.000	2.066	1.934	1.109	2.891	0.0	0.723	0.0	0.0	0.0	16075.5	1281.7	0.0	3861.4	10631.7
426.50	4.000	4.000	2.066	1.934	1.109	2.891	0.0	0.723	0.0	0.0	0.0	16094.3	1281.7	0.0	3866.6	10645.3
427.00	4.000	4.000	2.066	1.934	1.109	2.891	0.0	0.723	0.0	0.0	0.0	16113.2	1281.7	0.0	3871.8	10658.9
427.50	4.000	4.000	2.066	1.934	1.109	2.891	0.0	0.723	0.0	0.0	0.0	16132.1	1281.7	0.0	3877.1	10672.6
428.00	4.000	4.000	2.066	1.934	1.109	2.892	0.0	0.723	0.0	0.0	0.0	16150.9	1281.7	0.0	3882.3	10686.2
428.50	4.000	4.000	2.066	1.934	1.109	2.892	0.0	0.723	0.0	0.0	0.0	16169.8	1281.7	0.0	3887.5	10699.9
429.00	4.000	4.000	2.066	1.934	1.109	2.892	0.0	0.723	0.0	0.0	0.0	16188.7	1281.7	0.0	3892.8	10713.5
429.50	4.000	4.000	2.066	1.934	1.109	2.892	0.0	0.723	0.0	0.0	0.0	16207.5	1281.7	0.0	3898.0	10727.1
430.00	4.000	4.000	2.066	1.934	1.109	2.892	0.0	0.723	0.0	0.0	0.0	16226.4	1281.7	0.0	3903.2	10740.8
430.50	4.000	4.000	2.066	1.934	1.109	2.892	0.0	0.723	0.0	0.0	0.0	16245.3	1281.7	0.0	3908.4	10754.4
431.00	4.000	4.000	2.066	1.934	1.109	2.892	0.0	0.723	0.0	0.0	0.0	16264.2	1281.7	0.0	3913.7	10768.1
431.50	4.000	4.000	2.066	1.934	1.109	2.892	0.0	0.723	0.0	0.0	0.0	16283.0	1281.7	0.0	3918.9	10781.7
432.00	4.000	4.000	2.066	1.934	1.109	2.893	0.0	0.723	0.0	0.0	0.0	16301.9	1281.7	0.0	3924.1	10795.4
432.50	4.000	4.000	2.066	1.934	1.109	2.893	0.0	0.723	0.0	0.0	0.0	16320.8	1281.7	0.0	3929.4	10809.0
433.00	4.000	4.000	2.066	1.934	1.109	2.893	0.0	0.723	0.0	0.0	0.0	16339.6	1281.7	0.0	3934.6	10822.7
433.50	4.000	4.000	2.066	1.934	1.108	2.893	0.0	0.723	0.0	0.0	0.0	16358.5	1281.7	0.0	3939.8	10836.3
434.00	4.000	4.000	2.066	1.934	1.108	2.893	0.0	0.723	0.0	0.0	0.0	16377.4	1281.7	0.0	3945.0	10849.9
434.50	4.000	4.000	2.066	1.934	1.108	2.893	0.0	0.723	0.0	0.0	0.0	16396.2	1281.7	0.0	3950.3	10863.6
435.00	4.000	4.000	2.066	1.934	1.108	2.893	0.0	0.723	0.0	0.0	0.0	16415.1	1281.7	0.0	3955.5	10877.2
435.50	4.000	4.000	2.066	1.934	1.108	2.893	0.0	0.723	0.0	0.0	0.0	16434.0	1281.6	0.0	3960.7	10890.9
436.00	4.000	4.000	2.066	1.934	1.108	2.894	0.0	0.723	0.0	0.0	0.0	16452.8	1281.6	0.0	3966.0	10904.5
436.50	4.000	4.000	2.066	1.934	1.108	2.894	0.0	0.723	0.0	0.0	0.0	16471.7	1281.6	0.0	3971.2	10918.2
437.00	4.000	4.000	2.066	1.934	1.108	2.894	0.0	0.724	0.0	0.0	0.0	16490.6	1281.6	0.0	3976.4	10931.8
437.50	4.000	4.000	2.066	1.934	1.108	2.894	0.0	0.724	0.0	0.0	0.0	16509.4	1281.6	0.0	3981.6	10945.5
438.00	4.000	4.000	2.066	1.934	1.108	2.895	0.0	0.724	0.0	0.0	0.0	16528.3	1281.6	0.0	3986.9	10959.1
438.50	4.000	4.000	2.066	1.934	1.108	2.895	0.0	0.724	0.0	0.0	0.0	16547.2	1281.6	0.0	3992.1	10972.8
439.00	4.000	4.000	2.066	1.934	1.104	2.765	0.0	0.691	0.0	0.0	0.0	16566.0	1281.7	0.0	3997.3	10986.4
439.50	4.000	4.000	2.066	1.934	1.119	2.602	0.0	0.650	0.0	0.0	0.0	16584.9	1283.4	0.0	4002.6	10998.3
440.00	4.000	4.000	2.066	1.934	1.122	2.876	0.0	0.719	0.0	0.0	0.0	16603.8	1283.6	0.0	4007.9	11011.6
440.50	4.000	4.000	2.066	1.934	1.122	2.880	0.0	0.720	0.0	0.0	0.0	16622.6	1283.6	0.0	4013.1	11025.2
441.00	4.000	4.000	2.066	1.934	1.121	2.880	0.0	0.720	0.0	0.0	0.0	16641.5	1283.6	0.0	4018.4	11038.7
441.50	4.000	4.000	2.066	1.934	1.121	2.880	0.0	0.720	0.0	0.0	0.0	16660.4	1283.6	0.0	4023.7	11052.3
442.00	4.000	4.000	2.066	1.934	1.121	2.880	0.0	0.720	0.0	0.0	0.0	16679.2	1283.6	0.0	4029.0	11065.9
442.50	4.000	4.000	2.066	1.934	1.121	2.881	0.0	0.720	0.0	0.0	0.0	16698.1	1283.6	0.0	4034.3	11079.5
443.00	4.000	4.000	2.066	1.934	1.121	2.881	0.0	0.720	0.0	0.0	0.0	16717.0	1283.6	0.0	4039.6	11093.1
443.50	4.000	4.000	2.066	1.934	1.121	2.881	0.0	0.720	0.0	0.0	0.0	16735.8	1283.6	0.0	4044.9	11106.7
444.00	4.000	4.000	2.066	1.934	1.121	2.881	0.0	0.720	0.0	0.0	0.0	16754.7	1283.6	0.0	4050.2	11120.3
444.50	4.000	4.000	2.066	1.934	1.121	2.881	0.0	0.720	0.0	0.0	0.0	16773.6	1283.6	0.0	4055.5	11133.9
445.00	4.000	4.000	2.066	1.934	1.121	2.882	0.0	0.720	0.0	0.0	0.0	16792.5	1283.6	0.0	4060.7	11147.4
445.50	4.000	4.000	2.066	1.934	1.121	2.882	0.0	0.720	0.0	0.0	0.0	16811.3	1283.6	0.0	4066.0	11161.0
446.00	4.000	4.000	2.066	1.934	1.120	2.882	0.0	0.720	0.0	0.0	0.0	16830.2	1283.5	0.0	4071.3	11174.6
446.50	4.000	4.000	2.066	1.934	1.120	2.882	0.0	0.720	0.0	0.0	0.0	16849.1	1283.5	0.0	4076.6	11188.2
447.00	4.000	4.000	2.066	1.934	1.120	2.882	0.0	0.721	0.0	0.0	0.0	16867.9	1283.5	0.0	4081.9	11201.8
447.50	4.000	4.000	2.066	1.934	1.120	2.882	0.0	0.721	0.0	0.0	0.0	16886.8	1283.5	0.0	4087.2	11215.4
448.00	4.000	4.000	2.066	1.934	1.120	2.882	0.0	0.721	0.0	0.0	0.0	16905.7	1283.5	0.0	4092.4	11229.0
448.50	4.000	4.000	2.066	1.934	1.120	2.882	0.0	0.721	0.0	0.0	0.0	16924.5	1283.5	0.0	4097.7	11242.6
449.00	4.000	4.000	2.066	1.934	1.120	2.881	0.0	0.720	0.0	0.0	0.0	16943.4	1283.5	0.0	4103.0	11256.2
449.50	4.000	4.000	2.066	1.934	1.120	2.881	0.0	0.720	0.0	0.0	0.0	16962.3	1283.5	0.0	4108.3	11269.8

*** TIME = 450.00 (SEC) **** INLET AND OUTLET CONDITION ****

TQN2(C)	ZB2(M)	TQN5(C)	ZB5(M)	DD(IB4)(MM)	DD(N1)(MM)	DP(M)	CRATIO
667.46	2.2656	0.0	3.6400	0.66535	2.3075	1.4291	0.72031

P, RL, RGST 2.0000D+04 7.4225D-06 8.7246D-09

I	IP	AG(I)	PC(I)	HT(I)	HR(I)	HCV(I)	UG(I)	UL(I)	TW(I)	TL/TG(I)	G(I)
1	1	0.0	2.000D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	100.0	1.069D-03
2	1	0.0	1.996D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.0	1.069D-03
3	1	0.0	1.992D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	101.9	1.069D-03
4	1	0.0	1.989D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	102.9	1.069D-03
5	1	0.0	1.985D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	103.8	1.069D-03
6	1	0.0	1.981D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	104.8	1.069D-03
7	1	0.0	1.977D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	105.8	1.069D-03
8	1	0.0	1.974D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	106.7	1.069D-03
9	1	0.0	1.970D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	107.7	1.069D-03
10	1	0.0	1.966D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	108.6	1.069D-03
11	1	0.0	1.962D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	109.6	1.069D-03
12	1	0.0	1.958D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	110.6	1.069D-03
13	1	0.0	1.955D+04	1553.	0.0	3.262D+06	0.0	144.0	128.4	111.5	1.069D-03
14	1	0.0	1.951D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	112.5	1.069D-03
15	1	0.0	1.947D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	114.4	1.069D-03
16	1	0.0	1.943D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	116.2	1.069D-03
17	1	0.0	1.940D+04	2564.	0.0	6.368D+06	0.0	144.0	130.0	118.1	1.069D-03
18	3	0.0119	1.936D+04	2564.	0.0	6.368D+06	1408.	145.7	130.0	120.0	1.069D-03
19	3	0.1161	1.932D+04	2564.	0.0	6.368D+06	3907.	162.3	130.0	119.6	1.069D-03
20	3	0.1818	1.929D+04	2564.	0.0	6.368D+06	4896.	174.7	130.0	119.6	1.069D-03
21	3	0.2205	1.926D+04	2564.	0.0	6.368D+06	6017.	182.7	130.0	119.6	1.069D-03
22	3	0.2529	1.923D+04	2564.	0.0	6.368D+06	6973.	190.0	130.0	119.6	1.069D-03
23	3	0.2812	1.920D+04	2564.	0.0	6.368D+06	7824.	196.7	130.0	119.6	1.069D-03
24	3	0.3066	1.917D+04	2564.	0.0	6.368D+06	8598.	203.2	130.0	119.6	1.069D-03
25	3	0.3299	1.915D+04	3411.	0.0	9.317D+06	9315.	209.5	131.1	119.6	1.069D-03
26	3	0.3610	1.912D+04	3411.	0.0	9.317D+06	1.028D+04	218.5	131.1	119.6	1.069D-03
27	3	0.3893	1.910D+04	3411.	0.0	9.317D+06	1.118D+04	227.4	131.1	119.6	1.069D-03
28	3	0.4155	1.907D+04	3411.	0.0	9.317D+06	1.201D+04	236.3	131.1	119.6	1.069D-03
29	3	0.4400	1.905D+04	3411.	0.0	9.317D+06	1.279D+04	245.3	131.1	119.6	1.069D-03
30	3	0.4629	1.903D+04	3411.	0.0	9.317D+06	1.354D+04	254.4	131.1	119.6	1.069D-03
31	3	0.4847	1.901D+04	3411.	0.0	9.317D+06	1.425D+04	263.7	131.1	119.6	1.069D-03
32	3	0.5054	1.899D+04	3411.	0.0	9.317D+06	1.493D+04	273.2	131.1	119.6	1.069D-03
33	3	0.5251	1.897D+04	3411.	0.0	9.317D+06	1.559D+04	283.0	131.1	119.6	1.069D-03
34	3	0.5441	1.895D+04	3411.	0.0	9.317D+06	1.622D+04	293.1	131.1	119.6	1.069D-03
35	3	0.5622	1.894D+04	3411.	0.0	9.317D+06	1.683D+04	303.5	131.1	119.6	1.069D-03
36	3	0.5798	1.892D+04	4391.	0.0	1.305D+07	1.742D+04	314.4	132.1	119.6	1.069D-03
37	3	0.6033	1.890D+04	4391.	0.0	1.305D+07	1.822D+04	330.4	132.1	119.6	1.069D-03
38	3	0.6258	1.889D+04	4391.	0.0	1.305D+07	1.900D+04	347.5	132.1	119.6	1.069D-03
39	3	0.6474	1.887D+04	4391.	0.0	1.305D+07	1.975D+04	365.7	132.1	119.6	1.069D-03
40	3	0.6681	1.886D+04	4391.	0.0	1.305D+07	2.048D+04	385.4	132.1	119.6	1.069D-03
41	3	0.6880	1.885D+04	4391.	0.0	1.305D+07	2.118D+04	406.6	132.1	119.6	1.069D-03
42	3	0.7072	1.883D+04	4391.	0.0	1.305D+07	2.187D+04	429.7	132.1	119.6	1.069D-03
43	3	0.7258	1.882D+04	4391.	0.0	1.305D+07	2.255D+04	455.0	132.1	119.6	1.069D-03
44	3	0.7437	1.881D+04	4391.	0.0	1.305D+07	2.321D+04	482.7	132.1	119.6	1.069D-03
45	3	0.7610	1.880D+04	4391.	0.0	1.305D+07	2.385D+04	513.2	132.1	119.6	1.069D-03
46	3	0.7777	1.879D+04	4391.	0.0	1.305D+07	2.449D+04	547.2	132.1	119.6	1.069D-03
47	3	0.7939	1.878D+04	4391.	0.0	1.305D+07	2.512D+04	585.1	132.1	119.6	1.069D-03
48	3	0.8096	1.878D+04	4391.	0.0	1.305D+07	2.574D+04	627.6	132.1	119.6	1.069D-03
49	3	0.8247	1.877D+04	4391.	0.0	1.305D+07	2.635D+04	675.6	132.1	119.6	1.069D-03
50	3	0.8392	1.876D+04	4391.	0.0	1.305D+07	2.696D+04	730.2	132.1	119.6	1.069D-03

51	3	0.8532	1.875D+04	4391.	0.0	1.305D+07	2.757D+04	792.5	132.1	119.6	1.069D-03
52	3	0.8666	1.875D+04	4391.	0.0	1.305D+07	2.818D+04	864.2	132.1	119.6	1.069D-03
53	3	0.8793	1.874D+04	4391.	0.0	1.305D+07	2.878D+04	946.8	132.1	119.6	1.069D-03
54	3	0.8914	1.874D+04	4391.	0.0	1.305D+07	2.940D+04	1043.	132.1	119.6	1.069D-03
55	3	0.9028	1.873D+04	4391.	0.0	1.305D+07	3.002D+04	1154.	132.1	119.6	1.069D-03
56	3	0.9134	1.873D+04	3496.	0.0	9.631D+06	3.065D+04	1283.	131.2	119.6	1.069D-03
57	3	0.9207	1.873D+04	3496.	0.0	9.631D+06	3.112D+04	1392.	131.2	119.6	1.069D-03
58	5	0.9339	1.872D+04	106.6	6.038D+06	8.182D+06	3.258D+04	1638.	679.1	119.6	1.069D-03
59	5	0.9884	1.870D+04	72.42	1.413D+06	8.674D+06	3.249D+04	9313.	704.0	135.8	1.069D-03
60	5	0.9886	1.870D+04	72.17	1.339D+06	8.823D+06	3.491D+04	9420.	710.4	164.7	1.069D-03
61	5	0.9887	1.870D+04	71.95	1.297D+06	8.956D+06	3.675D+04	9541.	717.6	186.1	1.069D-03
62	5	0.9889	1.870D+04	71.65	1.262D+06	9.087D+06	3.863D+04	9668.	725.7	207.6	1.069D-03
63	5	0.9891	1.869D+04	71.25	1.233D+06	9.213D+06	4.061D+04	9802.	734.8	230.1	1.069D-03
64	5	0.9892	1.869D+04	70.76	1.208D+06	9.336D+06	4.269D+04	9939.	745.0	253.7	1.069D-03
65	5	0.9894	1.869D+04	70.15	1.188D+06	9.453D+06	4.490D+04	1.008D+04	756.2	278.5	1.069D-03
66	5	0.9896	1.869D+04	69.41	1.173D+06	9.564D+06	4.725D+04	1.022D+04	768.7	304.8	1.069D-03
67	5	0.9897	1.869D+04	68.55	1.162D+06	9.666D+06	4.975D+04	1.036D+04	782.6	332.6	1.069D-03
68	5	0.9899	1.868D+04	58.16	6.994D+05	6.982D+06	5.241D+04	1.051D+04	673.9	362.2	1.069D-03
69	5	0.9900	1.868D+04	58.35	6.433D+05	6.746D+06	5.106D+04	1.063D+04	651.1	343.6	1.069D-03
70	5	0.9901	1.868D+04	57.67	6.073D+05	6.550D+06	5.113D+04	1.074D+04	640.5	342.3	1.069D-03
71	5	0.9902	1.868D+04	56.70	5.862D+05	6.412D+06	5.186D+04	1.085D+04	637.6	349.0	1.069D-03
72	5	0.9903	1.868D+04	55.61	5.750D+05	6.317D+06	5.298D+04	1.096D+04	639.8	360.3	1.069D-03
73	5	0.9905	1.868D+04	54.41	5.703D+05	6.246D+06	5.437D+04	1.107D+04	645.4	374.8	1.069D-03
74	5	0.9906	1.868D+04	53.12	5.699D+05	6.185D+06	5.595D+04	1.117D+04	653.4	391.4	1.069D-03
75	5	0.9907	1.867D+04	51.73	5.722D+05	6.124D+06	5.768D+04	1.128D+04	662.9	409.8	1.069D-03
76	5	0.9908	1.867D+04	50.26	5.765D+05	6.056D+06	5.953D+04	1.139D+04	673.5	429.5	1.069D-03
77	5	0.9909	1.867D+04	48.71	5.822D+05	5.979D+06	6.148D+04	1.149D+04	684.9	450.2	1.069D-03
78	5	0.9909	1.867D+04	32.31	3.774D+05	3.304D+06	6.350D+04	1.160D+04	598.0	471.6	1.069D-03
79	5	0.9910	1.867D+04	33.12	3.185D+05	3.107D+06	6.008D+04	1.170D+04	553.7	429.5	1.069D-03
80	5	0.9911	1.867D+04	34.01	2.785D+05	2.973D+06	5.753D+04	1.179D+04	520.9	397.8	1.069D-03
81	5	0.9912	1.867D+04	35.13	2.542D+05	2.925D+06	5.574D+04	1.187D+04	499.4	375.2	1.069D-03
82	5	0.9913	1.867D+04	36.16	2.413D+05	2.931D+06	5.469D+04	1.196D+04	487.7	361.4	1.069D-03
83	5	0.9913	1.866D+04	36.79	2.356D+05	2.952D+06	5.429D+04	1.204D+04	483.2	355.2	1.069D-03
84	5	0.9914	1.866D+04	36.93	2.341D+05	2.966D+06	5.439D+04	1.212D+04	483.3	354.9	1.069D-03
85	5	0.9915	1.866D+04	36.64	2.347D+05	2.966D+06	5.485D+04	1.220D+04	486.2	358.7	1.069D-03
86	5	0.9915	1.866D+04	36.05	2.365D+05	2.950D+06	5.553D+04	1.229D+04	490.6	365.0	1.069D-03
87	5	0.9916	1.866D+04	35.27	2.387D+05	2.923D+06	5.634D+04	1.237D+04	495.7	372.8	1.069D-03
88	5	0.9916	1.866D+04	34.39	2.412D+05	2.887D+06	5.722D+04	1.245D+04	501.3	381.4	1.069D-03
89	5	0.9917	1.865D+04	33.45	2.437D+05	2.845D+06	5.814D+04	1.253D+04	507.0	390.3	1.069D-03
90	5	0.9918	1.865D+04	32.50	2.462D+05	2.799D+06	5.908D+04	1.261D+04	512.8	399.4	1.069D-03
91	5	0.9918	1.865D+04	31.55	2.488D+05	2.751D+06	6.002D+04	1.269D+04	518.5	408.5	1.069D-03

NAME(1)= 450

========== SYSTEM FLOW AND DYNAMICS ==========

TIME	USUP	ULIN	UDUP	UCUP	UGOUT	ULOUT	UGLOP	CRF	DPDN	DPCR	DPLDP	AMCOIN	AMCOR	AMC2	AMGS	AMLS
	<------	(CM/SEC) AT CORE WATER STATE					------>		<---	(M.AQ)	---->	<---	(KG/M**2) AT CORE FLOW --->			
450.00	4.000	4.000	2.066	1.934	1.120	2.881	0.0	0.720	0.0	0.0	0.0	16981.1	1283.5	0.0	4113.6	11283.4

CONTROL DATA

TIME (SEC)	MAXPOWER (KW/M)	FLOWRATE (CM/SEC)	PRESSURE (KG/CM**2)	DPCORE (M.AQ)	DPDOWN (M.AQ)	DPLOOP (M.AQ)	WGOUT (KG/M**2H)
0.0	2.10000	4.00000	2.00000	0.0	0.0	0.0	-56.0918
5.00000	2.10000	4.00000	2.00000	0.0	0.0	0.0	83.6835
10.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	96.7311
15.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	1916.18
20.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	7234.76
25.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	9569.44
30.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	17406.9
35.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	22050.1
40.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	32166.9
45.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	32550.5
50.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	32771.5
55.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	32975.0
60.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33158.6
65.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33249.8
70.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33124.3
75.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33538.0
80.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33608.0
85.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33727.9
90.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33771.5
95.0000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33873.7
100.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33897.2
105.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33973.0
110.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	33958.2
115.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34016.5
120.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34027.9
125.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34199.9
130.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34112.1
135.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34161.2
140.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34245.6
145.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34228.0
150.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34367.3
155.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34405.6
160.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34439.9
165.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34498.4
170.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34533.5
175.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34562.7
180.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34590.0
185.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34656.7
190.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34682.9
195.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34705.3
200.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34727.7
205.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34792.5
210.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34813.5
215.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34831.1
220.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34851.7
225.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34915.0
230.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34932.0
235.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	34947.5
240.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	28134.2
245.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35036.9

(CONTINUED)

CONTROL DATA

TIME (SEC)	MAXPOWER (KW/M)	FLOWRATE (CM/SEC)	PRESSURE (KG/CM**2)	DPCORE (M.AQ)	DPDOWN (M.AQ)	DPLOOP (M.AQ)	WGOUT (KG/M**2H)
250.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35051.0
255.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35064.6
260.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35133.4
265.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35166.7
270.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35178.4
275.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35190.5
280.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35326.1
285.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35333.8
290.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35342.1
295.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35351.9
300.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35553.9
305.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35555.4
310.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35558.0
315.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35563.5
320.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35836.0
325.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35831.3
330.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35828.5
335.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	35827.8
340.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36173.1
345.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36161.0
350.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36151.9
355.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36144.4
360.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36565.1
365.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36543.5
370.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36527.2
375.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36513.0
380.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36889.3
385.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36975.8
390.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36951.4
395.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36930.5
400.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	36911.8
405.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	37319.0
410.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	37311.1
415.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	37310.9
420.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	37315.8
425.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	37687.0
430.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	37660.8
435.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	37639.6
440.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	38094.7
445.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	38060.1
450.000	2.10000	4.00000	2.00000	0.0	0.0	0.0	38032.8

TEMPERATURE PROFILE

TIME (SEC)	TW1 (DC)	TW2 (DC)	TW3 (DC)	TW4 (DC)	TW5 (DC)	TW6 (DC)	HT3 (KCL/M2HC)
0.0	250.810	318.439	400.587	400.587	320.453	247.303	0.134863D-01
5.00000	266.239	340.228	429.671	429.672	342.951	262.412	0.104736
10.0000	281.551	361.762	458.255	458.258	365.176	277.418	0.93802RD-01
15.0000	296.469	382.845	486.162	486.243	387.187	292.492	3.34387
20.0000	130.041	403.143	512.896	513.117	408.767	307.656	15.7902
25.0000	130.041	422.069	538.096	538.941	430.174	323.131	13.9024
30.0000	130.041	430.190	560.322	562.711	450.745	338.417	33.6471
35.0000	130.041	430.745	572.754	576.811	466.038	350.303	75.0053
40.0000	130.041	430.116	582.444	585.630	477.807	359.104	75.8945
45.0000	130.041	427.874	591.511	594.064	489.143	367.637	77.1513
50.0000	130.041	423.039	599.935	602.639	500.247	376.009	78.2914
55.0000	130.041	411.140	607.764	611.207	511.105	384.222	79.3476
60.0000	130.041	131.081	615.040	619.690	521.715	392.280	80.3259
65.0000	130.041	131.081	621.800	628.034	532.075	400.186	81.3073
70.0000	130.041	131.081	628.186	636.018	542.252	408.006	81.2594
75.0000	130.041	131.081	634.064	643.616	551.917	415.537	82.6528
80.0000	130.041	131.081	639.538	651.089	561.410	422.978	83.2608
85.0000	130.041	131.081	644.659	658.276	570.671	430.302	83.8036
90.0000	130.041	131.081	649.439	665.133	579.652	437.472	84.3102
95.0000	130.041	131.081	653.918	671.695	588.408	444.527	84.7582
100.000	130.041	131.081	658.106	677.924	596.895	451.437	85.1499
105.000	130.041	131.081	662.044	683.834	605.160	458.242	85.4803
110.000	130.041	131.081	665.748	689.372	613.161	464.904	85.7027
115.000	130.041	131.081	669.266	694.517	620.943	471.458	85.8448
120.000	130.041	131.081	672.603	699.188	628.433	477.852	85.9808
125.000	130.041	131.081	675.559	703.742	635.517	483.977	87.7834
130.000	130.041	131.081	678.376	708.635	642.867	490.316	86.6615
135.000	130.041	131.081	681.183	712.406	649.684	496.337	86.5350
140.000	130.041	131.081	683.856	715.660	656.158	502.155	86.8236
145.000	130.041	131.081	686.326	718.795	662.391	507.825	87.5237
150.000	130.041	131.081	688.555	722.026	668.456	513.404	87.7674
155.000	130.041	131.081	690.633	725.054	674.289	518.845	88.0132
160.000	130.041	131.081	692.570	727.889	679.898	524.157	88.2409
165.000	130.041	131.081	694.318	730.708	685.326	529.365	88.9390
170.000	130.041	131.081	695.884	733.447	690.540	534.446	89.1033
175.000	130.041	131.081	697.346	735.984	695.534	539.399	89.2733
180.000	130.041	131.081	698.708	738.326	700.313	544.226	89.4345
185.000	130.041	131.081	699.869	742.112	706.265	550.067	90.2669
190.000	130.041	131.081	700.888	744.301	710.632	554.649	90.3666
195.000	130.041	131.081	701.840	746.297	714.790	559.107	90.4740
200.000	130.041	131.081	702.727	748.108	718.742	563.442	90.5785
205.000	130.041	131.081	132.088	751.137	723.684	568.689	4391.22
210.000	130.041	131.081	132.088	752.842	727.249	572.784	4391.22
215.000	130.041	131.081	132.088	754.375	730.617	576.757	4391.22
220.000	130.041	131.081	132.088	755.735	733.789	580.608	4391.22
225.000	130.041	131.081	132.088	758.132	737.783	585.215	4391.22
230.000	130.041	131.081	132.088	759.442	740.594	588.832	4391.22
235.000	130.041	131.081	132.088	760.597	743.220	592.327	4391.22
240.000	130.041	131.081	132.088	762.356	746.227	596.131	4391.22
245.000	130.041	131.081	132.088	763.545	748.781	599.742	4391.22

(CONTINUED)

TEMPERATURE PROFILE

TIME (SEC)	TW1 (DC)	TW2 (DC)	TW3 (- DC)	TW4 (DC)	TW5 (DC)	TW6 (DC)	HT3 (KCL/M2HC)
250.000	130.041	131.081	132.088	764.573	750.894	602.885	4391.22
255.000	130.041	131.081	132.088	765.463	752.834	605.906	4391.22
260.000	130.041	131.081	132.088	766.886	755.300	609.479	4391.22
265.000	130.041	131.081	132.088	767.879	756.939	612.274	4391.22
270.000	130.041	131.081	132.088	768.734	758.413	614.944	4391.22
275.000	130.041	131.081	132.088	769.461	759.726	617.489	4391.22
280.000	130.041	131.081	132.088	770.745	761.467	620.488	4391.22
285.000	130.041	131.081	132.088	771.718	762.523	622.817	4391.22
290.000	130.041	131.081	132.088	772.557	763.428	625.021	4391.22
295.000	130.041	131.081	132.088	773.270	764.187	627.097	4391.22
300.000	130.041	131.081	132.088	774.617	765.291	629.554	4391.22
305.000	130.041	131.081	132.088	775.658	765.837	631.427	4391.22
310.000	130.041	131.081	132.088	776.572	766.248	633.174	4391.22
315.000	130.041	131.081	132.088	777.366	766.530	634.795	4391.22
320.000	130.041	131.081	132.088	778.625	767.084	636.724	4391.22
325.000	130.041	131.081	132.088	779.612	767.188	638.152	4391.22
330.000	130.041	131.081	132.088	780.523	767.177	639.458	4391.22
335.000	130.041	131.081	132.088	781.362	767.056	640.641	4391.22
340.000	130.041	131.081	132.088	775.165	767.130	642.054	4391.22
345.000	130.041	131.081	132.088	767.564	766.849	643.048	4391.22
350.000	130.041	131.081	132.088	760.546	766.473	643.924	4391.22
355.000	130.041	131.081	132.088	754.061	766.008	644.683	4391.22
360.000	130.041	131.081	132.088	132.088	765.668	645.593	4391.22
365.000	130.041	131.081	132.088	132.088	765.047	646.159	4391.22
370.000	130.041	131.081	132.088	132.088	764.351	646.612	4391.22
375.000	130.041	131.081	132.088	132.088	763.585	646.954	4391.22
380.000	130.041	131.081	132.088	132.088	762.909	647.385	4391.22
385.000	130.041	131.081	132.088	132.088	761.984	647.527	4391.22
390.000	130.041	131.081	132.088	132.088	761.005	647.564	4391.22
395.000	130.041	131.081	132.088	132.088	759.975	647.498	4391.22
400.000	130.041	131.081	132.088	132.088	758.899	647.334	4391.22
405.000	130.041	131.081	132.088	132.088	757.801	647.116	4391.22
410.000	130.041	131.081	132.088	132.088	756.589	646.748	4391.22
415.000	130.041	131.081	132.088	132.088	755.334	646.278	4391.22
420.000	130.041	131.081	132.088	132.088	754.033	645.702	4391.22
425.000	130.041	131.081	132.088	132.088	752.687	645.039	4391.22
430.000	130.041	131.081	132.088	132.088	751.233	644.215	4391.22
435.000	130.041	131.081	132.088	132.088	749.746	643.284	4391.22
440.000	130.041	131.081	132.088	132.088	748.250	642.276	4391.22
445.000	130.041	131.081	132.088	132.088	746.615	641.092	4391.22
450.000	130.041	131.081	132.088	132.088	744.966	639.816	4391.22

QUENCH DATA AND CARRYOVER RATIO

TIME (SEC)	LC.SUBCL (DC)	QUENCHVL (CM/SEC)	QUENCHPT (M)	CARRYOVR (-)	QUENCHTP (DC)	TW3 (DC)	HT3 (KCL/HM2C)
0.0	19.6200	4.00000	0.4000000-02	0.0	181.164	400.587	0.1348630-01
5.00000	19.6200	3.99983	0.204000	0.5962150-07	181.164	429.671	0.104736
10.0000	19.6200	3.99322	0.403974	0.7633520-05	181.164	458.255	0.9380280-01
15.0000	19.6200	3.88707	0.603716	0.8479340-13	296.199	486.162	3.34387
20.0000	19.6200	4.82525	0.827591	0.1328800-12	310.644	512.896	15.7902
25.0000	19.6200	0.891307	0.982980	0.1942690-12	409.888	538.096	13.9024
30.0000	19.6200	0.986849	1.03128	0.3013930-12	401.763	560.322	33.6471
35.0000	19.6200	1.01833	1.08140	0.776189	398.855	572.754	75.0053
40.0000	19.6200	0.997060	1.13143	0.744835	401.565	582.444	75.8945
45.0000	19.6200	0.968797	1.18059	0.767385	403.847	591.511	77.1513
50.0000	19.6200	0.933991	1.22847	0.766346	406.696	599.935	78.2914
55.0000	19.6200	0.906670	1.27487	0.764028	408.950	607.764	79.3476
60.0000	19.6200	0.887900	1.31975	0.762757	410.017	615.040	80.3259
65.0000	19.6200	0.841122	1.36335	0.753506	421.313	621.800	81.3073
70.0000	19.6200	0.447012	1.39206	0.723169	501.852	628.186	81.2594
75.0000	19.6200	0.405816	1.41284	0.757121	517.369	634.064	82.6528
80.0000	19.6200	0.405410	1.43303	0.750142	516.961	639.538	83.2608
85.0000	19.6200	0.412476	1.45381	0.754802	514.418	644.659	83.8036
90.0000	19.6200	0.404877	1.47413	0.746885	517.336	649.439	84.3102
95.0000	19.6200	0.404803	1.49467	0.751244	518.078	653.918	84.7582
100.000	19.6200	0.397290	1.51461	0.743511	521.065	658.106	85.1499
105.000	19.6200	0.380908	1.53444	0.746669	530.941	662.044	85.4803
110.000	19.6200	0.356701	1.55276	0.737191	544.401	665.748	85.7027
115.000	19.6200	0.315572	1.57007	0.741603	576.113	669.266	85.8448
120.000	19.6200	0.260757	1.58432	0.738690	628.481	672.603	85.9808
125.000	19.6200	0.240025	1.59659	0.727834	651.968	675.559	87.7834
130.000	19.6200	0.239422	1.60873	0.733588	653.898	678.376	86.6615
135.000	19.6200	0.228876	1.62042	0.735638	669.143	681.183	86.5350
140.000	19.6200	0.219616	1.63163	0.749334	683.731	683.856	86.8236
145.000	19.6200	0.212624	1.64240	0.732724	694.967	686.326	87.5237
150.000	19.6200	0.211708	1.65301	0.748265	696.572	688.555	87.7674
155.000	19.6200	0.210885	1.66357	0.748386	698.029	690.633	88.0132
160.000	19.6200	0.210147	1.67410	0.748302	699.343	692.570	88.2409
165.000	19.6200	0.209553	1.68459	0.745504	700.390	694.318	88.9390
170.000	19.6200	0.209131	1.69506	0.746701	701.149	695.884	89.1033
175.000	19.6200	0.208767	1.70550	0.746795	701.807	697.346	89.2733
180.000	19.6200	0.208457	1.71593	0.746918	702.367	698.708	89.4345
185.000	19.6200	0.208274	1.72635	0.744811	702.684	699.869	90.2669
190.000	19.6200	0.208191	1.73676	0.745450	702.832	700.888	90.3666
195.000	19.6200	0.208145	1.74717	0.745558	702.913	701.840	90.4740
200.000	19.6200	0.208134	1.75758	0.745916	702.930	702.727	90.5785
205.000	19.6200	0.208219	1.76798	0.744096	702.763	132.088	4391.22
210.000	19.6200	0.208353	1.77840	0.744519	702.517	132.088	4391.22
215.000	19.6200	0.208508	1.78882	0.744601	702.231	132.088	4391.22
220.000	19.6200	0.208685	1.79925	0.745327	701.906	132.088	4391.22
225.000	19.6200	0.208960	1.80969	0.743395	701.397	132.088	4391.22
230.000	19.6200	0.209256	1.82015	0.743693	700.858	132.088	4391.22
235.000	19.6200	0.209564	1.83062	0.743852	700.298	132.088	4391.22
240.000	19.6200	0.209888	1.84110	0.4683760-12	699.707	132.088	4391.22
245.000	19.6200	0.210274	1.85161	0.742653	699.015	132.088	4391.22

(CONTINUED)

QUENCH DATA AND CARRYOVER RATIO

TIME (SEC)	LC.SUBCL (DC)	QUENCHVL (CM/SEC)	QUENCHPT (M)	CARRYOVR (-)	QUENCHTP (DC)	TW3 (DC)	HT3 (KCL/HM2C)
250.000	19.6200	0.210660	1.86213	0.742867	698.322	132.088	4391.22
255.000	19.6200	0.211050	1.87267	0.743067	697.624	132.088	4391.22
260.000	19.6200	0.211467	1.88324	0.719644	696.875	132.088	4391.22
265.000	19.6200	0.211948	1.89382	0.741779	696.024	132.088	4391.22
270.000	19.6200	0.212423	1.90443	0.741946	695.187	132.088	4391.22
275.000	19.6200	0.212896	1.91507	0.742224	694.358	132.088	4391.22
280.000	19.6200	0.212859	1.92572	0.740114	694.517	132.088	4391.22
285.000	19.6200	0.212268	1.93634	0.740493	695.558	132.088	4391.22
290.000	19.6200	0.211643	1.94694	0.740670	696.666	132.088	4391.22
295.000	19.6200	0.210987	1.95751	0.741117	697.835	132.088	4391.22
300.000	19.6200	0.208853	1.96801	0.738403	701.876	132.088	4391.22
305.000	19.6200	0.206121	1.97839	0.738736	706.922	132.088	4391.22
310.000	19.6200	0.203390	1.98862	0.738955	712.100	132.088	4391.22
315.000	19.6200	0.200672	1.99872	0.739575	717.391	132.088	4391.22
320.000	19.6200	0.198522	2.00870	0.736335	721.614	132.088	4391.22
325.000	19.6200	0.196400	2.01857	0.736655	725.952	132.088	4391.22
330.000	19.6200	0.194175	2.02833	0.736880	730.597	132.088	4391.22
335.000	19.6200	0.191875	2.03798	0.737378	735.511	132.088	4391.22
340.000	19.6200	0.190382	2.04753	0.733790	738.639	132.088	4391.22
345.000	19.6200	0.189003	2.05702	0.734151	741.709	132.088	4391.22
350.000	19.6200	0.187421	2.06643	0.734387	745.278	132.088	4391.22
355.000	19.6200	0.185673	2.07576	0.734737	749.287	132.088	4391.22
360.000	19.6200	0.184462	2.08500	0.730768	751.952	132.088	4391.22
365.000	19.6200	0.183684	2.09421	0.731234	753.813	132.088	4391.22
370.000	19.6200	0.182620	2.10336	0.731504	756.365	132.088	4391.22
375.000	19.6200	0.181315	2.11246	0.731791	759.524	132.088	4391.22
380.000	19.6200	0.179975	2.12149	0.623214	762.616	132.088	4391.22
385.000	19.6200	0.179726	2.13049	0.727930	763.273	132.088	4391.22
390.000	19.6200	0.179118	2.13946	0.728270	764.815	132.088	4391.22
395.000	19.6200	0.178200	2.14839	0.728550	767.136	132.088	4391.22
400.000	19.6200	0.177018	2.15727	0.728979	770.145	132.088	4391.22
405.000	19.6200	0.183225	2.16621	0.725733	753.449	132.088	4391.22
410.000	19.6200	0.194912	2.17567	0.725930	727.446	132.088	4391.22
415.000	19.6200	0.208496	2.18575	0.725980	700.877	132.088	4391.22
420.000	19.6200	0.224623	2.19657	0.726127	673.492	132.088	4391.22
425.000	19.6200	0.231121	2.20807	0.722636	665.002	132.088	4391.22
430.000	19.6200	0.230844	2.21962	0.723025	665.447	132.088	4391.22
435.000	19.6200	0.230168	2.23115	0.723330	666.486	132.088	4391.22
440.000	19.6200	0.229428	2.24263	0.718918	667.493	132.088	4391.22
445.000	19.6200	0.229687	2.25411	0.720392	667.139	132.088	4391.22
450.000	19.6200	0.229497	2.26560	0.720312	667.459	132.088	4391.22

HEAT TRANSFER COEFFICIENT

TIME	HT1	HT2	HT3	HT4	HT5	HT6	VOID3
(SEC)	(KCL/HM2C)	(KCL/HM2C)	(KCL/HM2C)	(KCL/HM2C)	(KCL/HM2C)	(KCL/HM2C)	(-)
0.0	0.152514D-01	0.142407D-01	0.124863D-01	0.134863D-01	0.145564D-01	0.153097D-01	1.00000
5.00000	0.211677	0.127813	0.104736	0.943552D-01	0.873458D-01	-0.290545	1.00000
10.0000	0.221698	0.120102	0.938028D-01	0.819488D-01	0.625898D-01	-0.406014	1.00000
15.0000	5.65606	4.15425	3.34387	2.56250	0.441649	-2.93244	1.00000
20.0000	2563.90	5.71029	15.7902	9.67470	-0.309911	-15.4207	1.00000
25.0000	2563.90	20.1360	13.9024	8.03300	-0.940254	-9.47977	1.00000
30.0000	2563.90	119.474	33.6471	24.5543	11.9154	-4.21487	1.00000
35.0000	2563.90	125.321	75.0053	79.5886	50.6272	43.6519	0.818785
40.0000	2563.90	134.206	75.8945	80.2806	49.6577	42.6834	0.814075
45.0000	2563.90	147.239	77.1513	77.6380	49.6824	42.7947	0.822169
50.0000	2563.90	171.748	78.2914	75.9694	49.1189	42.2618	0.828544
55.0000	2563.90	297.839	79.3476	74.6917	48.6646	41.8037	0.834030
60.0000	2563.90	3410.82	80.3259	73.7526	48.2964	41.3791	0.838792
65.0000	2563.90	3410.82	81.3073	72.0360	47.7194	40.8204	0.846776
70.0000	2563.90	3410.82	81.2594	74.8248	47.8964	40.4812	0.828859
75.0000	2563.90	3410.82	82.6528	72.9656	47.9387	40.3370	0.844742
80.0000	2563.90	3410.82	83.2608	72.8895	47.7488	39.9269	0.844964
85.0000	2563.90	3410.82	83.8036	73.2017	47.8091	39.7111	0.844297
90.0000	2563.90	3410.82	84.3102	73.2310	47.6509	39.3366	0.843797
95.0000	2563.90	3410.82	84.7582	73.6557	47.7530	39.1642	0.842463
100.000	2563.90	3410.82	85.1499	73.8787	47.6648	38.8001	0.840772
105.000	2563.90	3410.82	85.4803	74.4894	47.8177	38.6480	0.838122
110.000	2563.90	3410.82	85.7027	75.0773	47.8195	38.3874	0.833875
115.000	2563.90	3410.82	85.8448	76.2110	48.0954	38.3572	0.828063
120.000	2563.90	3410.82	85.9808	77.1276	48.2504	38.1858	0.822621
125.000	2563.90	3410.82	87.7834	72.9114	47.4673	37.5376	0.853655
130.000	2562.90	3410.82	86.6615	77.3546	48.4128	37.9640	0.822747
135.000	2563.90	3410.82	86.5350	79.4934	49.0160	38.1498	0.812641
140.000	2563.90	3410.82	86.8236	79.8114	49.3641	38.3168	0.812044
145.000	2563.90	3410.82	87.5237	78.6368	49.1285	37.6895	0.820976
150.000	2563.90	3410.82	87.7674	79.0232	49.6935	38.2386	0.820525
155.000	2563.90	3410.82	88.0132	79.3371	49.9832	38.2764	0.820515
160.000	2563.90	3410.82	88.2409	79.6765	50.2847	38.3228	0.820487
165.000	2563.90	3410.82	88.9390	78.8733	50.3978	38.2514	0.832310
170.000	2563.90	3410.82	89.1033	79.3063	50.7466	38.3373	0.831799
175.000	2563.90	3410.82	89.2733	79.6958	51.0873	38.4179	0.831703
180.000	2563.90	3410.82	89.4345	80.1132	51.4422	38.5111	0.831712
185.000	2563.90	3410.82	90.2669	79.4271	51.6107	38.4730	0.759099
190.000	2563.90	3410.82	90.3666	79.8830	51.9971	38.5963	0.763711
195.000	2563.90	3410.82	90.4740	80.3109	52.3807	38.7206	0.769581
200.000	2563.90	3410.82	90.5785	80.7688	52.7804	38.8614	0.777777
205.000	2563.90	3410.82	4391.22	80.0689	52.9955	38.8744	0.761005
210.000	2563.90	3410.82	4391.22	80.5018	53.4083	39.0355	0.761003
215.000	2563.90	3410.82	4391.22	80.9341	53.8232	39.2030	0.761003
220.000	2563.90	3410.82	4391.22	81.4101	54.2600	39.3940	0.761002
225.000	2563.90	3410.82	4391.22	80.6486	54.5026	39.4474	0.761002
230.000	2563.90	3410.82	4391.22	81.0631	54.9370	39.6502	0.761002
235.000	2563.90	3410.82	4391.22	81.4665	55.3730	39.8620	0.761002
240.000	2563.90	3410.82	4391.22	79.0913	35.7774	19.6851	0.761002
245.000	2563.90	3410.82	4391.22	81.0103	56.0804	40.1871	0.761002

(CONTINUED)

HEAT TRANSFER COEFFICIENT

TIME (SEC)	HT1 (KCL/HM2C)	HT2 (KCL/HM2C)	HT3 (KCL/HM2C)	HT4 (KCL/HM2C)	HT5 (KCL/HM2C)	HT6 (KCL/HM2C)	VOID3 (-)
250.000	2563.90	3410.82	4391.22	81.3989	56.5288	40.4339	0.761002
255.000	2563.90	3410.82	4391.22	81.7806	56.9792	40.6919	0.761002
260.000	2563.90	3410.82	4391.22	80.6982	57.2273	40.8037	0.761002
265.000	2563.90	3410.82	4391.22	81.1131	57.6930	41.0946	0.761002
270.000	2563.90	3410.82	4391.22	81.4791	58.1494	41.3874	0.761002
275.000	2563.90	3410.82	4391.22	81.8421	58.6080	41.6934	0.761002
280.000	2563.90	3410.82	4391.22	80.2912	58.8056	41.8030	0.761002
285.000	2563.90	3410.82	4391.22	80.6892	59.2737	42.1382	0.761002
290.000	2563.90	3410.82	4391.22	81.0478	59.7311	42.4769	0.761002
295.000	2563.90	3410.82	4391.22	81.4074	60.1891	42.8289	0.761002
300.000	2563.90	3410.82	4391.22	79.5785	60.3381	42.9274	0.761002
305.000	2563.90	3410.82	4391.22	79.9352	60.7928	43.2999	0.761002
310.000	2563.90	3410.82	4391.22	80.2636	61.2326	43.6724	0.761002
315.000	2563.90	3410.82	4391.22	80.5998	61.6690	44.0548	0.761002
320.000	2563.90	3410.82	4391.22	79.3793	61.8144	44.1621	0.761002
325.000	2563.90	3410.82	4391.22	79.5461	62.2358	44.5559	0.761002
330.000	2563.90	3410.82	4391.22	79.6963	62.6429	44.9489	0.761002
335.000	2563.90	3410.82	4391.22	79.8585	63.0430	45.3477	0.761002
340.000	2563.90	3410.82	4391.22	112.076	63.2461	45.5036	0.761002
345.000	2563.90	3410.82	4391.22	111.031	63.6309	45.9147	0.761002
350.000	2563.90	3410.82	4391.22	110.087	64.0022	46.3236	0.761002
355.000	2563.90	3410.82	4391.22	109.227	64.3639	46.7342	0.761002
360.000	2563.90	3410.82	4391.22	4391.22	64.6655	46.9714	0.761002
365.000	2563.90	3410.82	4391.22	4391.22	65.0099	47.3948	0.761002
370.000	2563.90	3410.82	4391.22	4391.22	65.3424	47.8145	0.761002
375.000	2563.90	3410.82	4391.22	4391.22	65.6647	48.2329	0.761002
380.000	2563.90	3410.82	4391.22	4391.22	66.0886	48.5498	0.761002
385.000	2563.90	3410.82	4391.22	4391.22	66.3866	49.0050	0.761002
390.000	2563.90	3410.82	4391.22	4391.22	66.6765	49.4282	0.761002
395.000	2563.90	3410.82	4391.22	4391.22	66.9573	49.8485	0.761002
400.000	2563.90	3410.82	4391.22	4391.22	67.2307	50.2677	0.761002
405.000	2563.90	3410.82	4391.22	4391.22	67.6876	50.7242	0.761002
410.000	2563.90	3410.82	4391.22	4391.22	67.9656	51.1715	0.761002
415.000	2563.90	3410.82	4391.22	4391.22	68.2589	51.6453	0.761002
420.000	2563.90	3410.82	4391.22	4391.22	68.5697	52.1527	0.761002
425.000	2563.90	3410.82	4391.22	4391.22	69.1182	52.7907	0.761002
430.000	2563.90	3410.82	4391.22	4391.22	69.4052	53.3236	0.761002
435.000	2563.90	3410.82	4391.22	4391.22	69.6810	53.8509	0.761002
440.000	2563.90	3410.82	4391.22	4391.22	70.3020	54.5848	0.761002
445.000	2563.90	3410.82	4391.22	4391.22	70.5345	55.1002	0.761002
450.000	2563.90	3410.82	4391.22	4391.22	70.7557	55.6060	0.761002

VOID FRACTION

TIME	VOID1	VOID2	VOID3	VOID4	VOID5	VOID6	MAXPOWER
(SEC)	(-)	(-)	(-)	(-)	(-)	(-)	(KW/M)
0.0	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	2.10000
5.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	2.10000
10.0000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	2.10000
15.0000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	2.10000
20.0000	0.237253	1.00000	1.00000	1.00000	1.00000	1.00000	2.10000
25.0000	0.197784	1.00000	1.00000	1.00000	1.00000	1.00000	2.10000
30.0000	0.183980	0.608761	1.00000	1.00000	1.00000	1.00000	2.10000
35.0000	0.182179	0.611590	0.818785	0.941103	0.974689	0.980369	2.10000
40.0000	0.181889	0.606150	0.814075	0.941527	0.976149	0.981562	2.10000
45.0000	0.181820	0.602741	0.822169	0.946882	0.976469	0.981601	2.10000
50.0000	0.181801	0.596764	0.828544	0.950500	0.977353	0.982189	2.10000
55.0000	0.181795	0.584621	0.834030	0.953382	0.978065	0.982654	2.10000
60.0000	0.181793	0.525281	0.838792	0.955655	0.978647	0.983038	2.10000
65.0000	0.181793	0.525167	0.846776	0.958629	0.979310	0.983454	2.10000
70.0000	0.181793	0.525135	0.828859	0.955899	0.979439	0.983727	2.10000
75.0000	0.181793	0.525126	0.844742	0.959322	0.979777	0.983820	2.10000
80.0000	0.181793	0.525123	0.844964	0.960129	0.980108	0.984067	2.10000
85.0000	0.181793	0.525122	0.844297	0.960429	0.980234	0.984156	2.10000
90.0000	0.181793	0.525122	0.843797	0.961019	0.980515	0.984371	2.10000
95.0000	0.181793	0.525122	0.842463	0.961117	0.980593	0.984430	2.10000
100.000	0.181793	0.525122	0.840772	0.961405	0.980807	0.984602	2.10000
105.000	0.181793	0.525122	0.838122	0.961226	0.980840	0.984636	2.10000
110.000	0.181793	0.525122	0.833875	0.961025	0.980983	0.984772	2.10000
115.000	0.181793	0.525122	0.828063	0.960166	0.980897	0.984735	2.10000
120.000	0.181793	0.525122	0.822621	0.959538	0.980915	0.984778	2.10000
125.000	0.181793	0.525122	0.853655	0.965153	0.981921	0.985374	2.10000
130.000	0.181793	0.525122	0.822747	0.960280	0.981208	0.984992	2.10000
135.000	0.181793	0.525122	0.812641	0.958234	0.980929	0.984886	2.10000
140.000	0.181793	0.525122	0.812044	0.958298	0.980923	0.984824	2.10000
145.000	0.181793	0.525122	0.820976	0.960112	0.981479	0.985387	2.10000
150.000	0.181793	0.525122	0.820525	0.960098	0.981269	0.985043	2.10000
155.000	0.181793	0.525122	0.820515	0.960155	0.981326	0.985089	2.10000
160.000	0.181793	0.525122	0.820487	0.960169	0.981377	0.985131	2.10000
165.000	0.181793	0.525122	0.832310	0.961559	0.981627	0.985286	2.10000
170.000	0.181793	0.525122	0.821799	0.961465	0.981650	0.985309	2.10000
175.000	0.181793	0.525122	0.821703	0.961410	0.981683	0.985340	2.10000
180.000	0.181793	0.525122	0.831712	0.961310	0.981708	0.985367	2.10000
185.000	0.181793	0.525122	0.759099	0.962701	0.981963	0.985524	2.10000
190.000	0.181793	0.525122	0.763711	0.962554	0.981972	0.985540	2.10000
195.000	0.181793	0.525122	0.769581	0.962429	0.981988	0.985560	2.10000
200.000	0.181793	0.525122	0.777777	0.962258	0.981994	0.985574	2.10000
205.000	0.181793	0.525122	0.761005	0.963658	0.982240	0.985724	2.10000
210.000	0.181793	0.525122	0.761003	0.963521	0.982245	0.985736	2.10000
215.000	0.181793	0.525122	0.761003	0.963375	0.982250	0.985750	2.10000
220.000	0.181793	0.525122	0.761002	0.963170	0.982240	0.985754	2.10000
225.000	0.181793	0.525122	0.761002	0.964652	0.982494	0.985907	2.10000
230.000	0.181793	0.525122	0.761002	0.964529	0.982494	0.985916	2.10000
235.000	0.181793	0.525122	0.761002	0.964412	0.982494	0.985927	2.10000
240.000	0.181793	0.525122	0.761002	0.967860	0.999179	0.999972	2.10000
245.000	0.181793	0.525122	0.761002	0.965934	0.982766	0.986097	2.10000

(CONTINUED)

VOID FRACTION

TIME (SEC)	VOID1 (-)	VOID2 (-)	VOID3 (-)	VOID4 (-)	VOID5 (-)	VOID6 (-)	MAXPOWER (KW/M)
250.000	0.181793	0.525122	0.761002	0.965843	0.982763	0.986105	2.10000
255.000	0.181793	0.525122	0.761002	0.965757	0.982759	0.986112	2.10000
260.000	0.181793	0.525122	0.761002	0.967725	0.983099	0.986313	2.10000
265.000	0.181793	0.525122	0.761002	0.967607	0.983083	0.986310	2.10000
270.000	0.181793	0.525122	0.761002	0.967550	0.983078	0.986316	2.10000
275.000	0.181793	0.525122	0.761002	0.967494	0.983070	0.986319	2.10000
280.000	0.181793	0.525122	0.761002	0.970195	0.983569	0.986609	2.10000
285.000	0.181793	0.525122	0.761002	0.970092	0.983547	0.986603	2.10000
290.000	0.181793	0.525122	0.761002	0.970038	0.983534	0.986603	2.10000
295.000	0.181793	0.525122	0.761002	0.969981	0.983515	0.986600	2.10000
300.000	0.181793	0.525122	0.761002	0.973287	0.984218	0.987010	2.10000
305.000	0.181793	0.525122	0.761002	0.973171	0.984184	0.986996	2.10000
310.000	0.181793	0.525122	0.761002	0.973094	0.984156	0.986986	2.10000
315.000	0.181793	0.525122	0.761002	0.973010	0.984123	0.986972	2.10000
320.000	0.181793	0.525122	0.761002	0.976470	0.984986	0.987487	2.10000
325.000	0.181793	0.525122	0.761002	0.976350	0.984942	0.987465	2.10000
330.000	0.181793	0.525122	0.761002	0.976262	0.984906	0.987448	2.10000
335.000	0.181793	0.525122	0.761002	0.976175	0.984866	0.987429	2.10000
340.000	0.181793	0.525122	0.761002	0.879848	0.985830	0.988023	2.10000
345.000	0.181793	0.525122	0.761002	0.882575	0.985777	0.987992	2.10000
350.000	0.181793	0.525122	0.761002	0.885972	0.985733	0.987969	2.10000
355.000	0.181793	0.525122	0.761002	0.890306	0.985689	0.987945	2.10000
360.000	0.181793	0.525122	0.761002	0.879337	0.986712	0.988599	2.10000
365.000	0.181793	0.525122	0.761002	0.879336	0.986646	0.988558	2.10000
370.000	0.181793	0.525122	0.761002	0.879335	0.986596	0.988527	2.10000
375.000	0.181793	0.525122	0.761002	0.879335	0.986548	0.988498	2.10000
380.000	0.181793	0.525122	0.761002	0.879335	0.987594	0.989229	2.10000
385.000	0.181793	0.525122	0.761002	0.879335	0.987513	0.989141	2.10000
390.000	0.181793	0.525122	0.761002	0.879335	0.987457	0.989103	2.10000
395.000	0.181793	0.525122	0.761002	0.879335	0.987407	0.989070	2.10000
400.000	0.181793	0.525122	0.761002	0.879335	0.987358	0.989037	2.10000
405.000	0.181793	0.525122	0.761002	0.879335	0.988116	0.989556	2.10000
410.000	0.181793	0.525122	0.761002	0.879335	0.988097	0.989543	2.10000
415.000	0.181793	0.525122	0.761002	0.879335	0.988094	0.989540	2.10000
420.000	0.181793	0.525122	0.761002	0.879335	0.988096	0.989541	2.10000
425.000	0.181793	0.525122	0.761002	0.879335	0.988716	0.989981	2.10000
430.000	0.181793	0.525122	0.761002	0.879335	0.988672	0.989948	2.10000
435.000	0.181793	0.525122	0.761002	0.879335	0.988636	0.989920	2.10000
440.000	0.181793	0.525122	0.761002	0.879335	0.989308	0.990409	2.10000
445.000	0.181793	0.525122	0.761002	0.879335	0.989258	0.990368	2.10000
450.000	0.181793	0.525122	0.761002	0.879335	0.989229	0.990344	2.10000

MOVEMENT OF BOUNDARIES

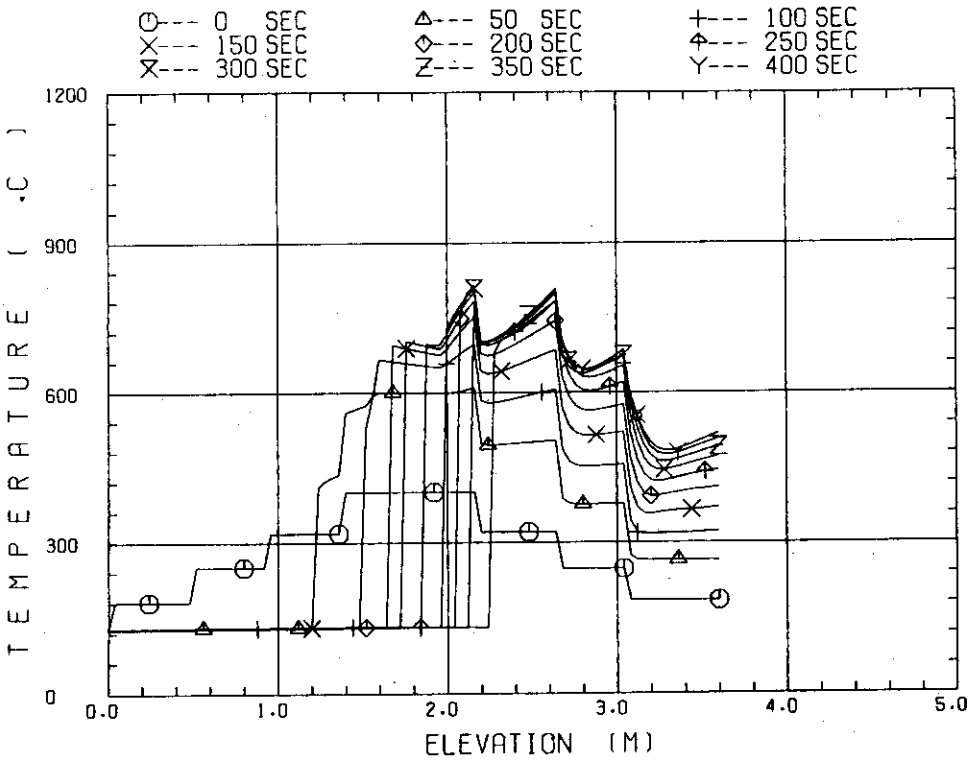
TIME (SEC)	LIQ.BOIL (M)	QUENCHPT (M)	SATURATE (M)	TRA-DISP (M)	REWETTED (M)	LIQ. LEV (M)	PRESHEAD (M)
0.0	0.4000000-02	0.4000000-02	0.4000000-02	0.4000000-02	3.60000	0.4000000-02	0.6894530-02
5.00000	0.204000	0.204000	0.204000	0.204000	3.60000	0.204000	0.206689
10.0000	0.402462	0.403974	0.403974	0.403974	3.60000	0.403974	0.406433
15.0000	0.598313	0.603716	0.603716	0.603896	3.60000	0.603896	0.604219
20.0000	0.614479	0.827591	0.827591	0.827591	3.60000	0.827591	0.800234
25.0000	0.654920	0.982980	0.982980	1.11224	3.60000	1.11224	0.990447
30.0000	0.668570	1.03128	1.03128	1.56035	3.60000	1.56035	1.17849
35.0000	0.671459	1.08140	1.08140	1.56402	3.60000	3.60000	1.42256
40.0000	0.671975	1.13143	1.13143	1.55637	3.60000	3.60000	1.44003
45.0000	0.672100	1.18059	1.18059	1.55092	3.60000	3.60000	1.43533
50.0000	0.672135	1.22847	1.22847	1.54729	3.60000	3.60000	1.43126
55.0000	0.672145	1.27487	1.27487	1.54466	3.60000	3.60000	1.42834
60.0000	0.672148	1.31975	1.31975	1.54287	3.60000	3.60000	1.42632
65.0000	0.672148	1.36335	1.36335	1.54062	3.60000	3.60000	1.42295
70.0000	0.672149	1.39206	1.39206	1.55945	3.60000	3.60000	1.43957
75.0000	0.672149	1.41284	1.41284	1.56375	3.60000	3.60000	1.41805
80.0000	0.672149	1.43303	1.43303	1.56584	3.60000	3.60000	1.41752
85.0000	0.672149	1.45381	1.45381	1.56854	3.60000	3.60000	1.41981
90.0000	0.672149	1.47413	1.47413	1.57123	3.60000	3.60000	1.41987
95.0000	0.672149	1.49467	1.49467	1.57444	3.60000	3.60000	1.42259
100.000	0.672149	1.51461	1.51461	1.57810	3.60000	3.60000	1.42362
105.000	0.672149	1.53444	1.53444	1.58237	3.60000	3.60000	1.42723
110.000	0.672149	1.55276	1.55276	1.58799	3.60000	3.60000	1.43016
115.000	0.672149	1.57007	1.57007	1.59211	3.60000	3.60000	1.43744
120.000	0.672149	1.58432	1.58432	1.59737	3.60000	3.60000	1.44090
125.000	0.672149	1.59659	1.59659	1.60590	3.60000	3.60000	1.40663
130.000	0.672149	1.60873	1.60873	1.61247	3.60000	3.60000	1.43438
135.000	0.672149	1.62042	1.62042	1.62042	3.60000	3.60000	1.44142
140.000	0.672149	1.63163	1.63163	1.63163	3.60000	3.60000	1.44103
145.000	0.672149	1.64240	1.64240	1.64240	3.60000	3.60000	1.43044
150.000	0.672149	1.65301	1.65301	1.65301	3.60000	3.60000	1.43077
155.000	0.672149	1.66357	1.66357	1.66357	3.60000	3.60000	1.42983
160.000	0.672149	1.67410	1.67410	1.67410	3.60000	3.60000	1.42870
165.000	0.672149	1.68459	1.68459	1.68459	3.60000	3.60000	1.42286
170.000	0.672149	1.69506	1.69506	1.69506	3.60000	3.60000	1.42236
175.000	0.672149	1.70550	1.70550	1.70550	3.60000	3.60000	1.42154
180.000	0.672149	1.71593	1.71593	1.71593	3.60000	3.60000	1.42050
185.000	0.672149	1.72635	1.72635	1.72635	3.60000	3.60000	1.41743
190.000	0.672149	1.73676	1.73676	1.73676	3.60000	3.60000	1.41691
195.000	0.672149	1.74717	1.74717	1.74717	3.60000	3.60000	1.41612
200.000	0.672149	1.75758	1.75758	1.75758	3.60000	3.60000	1.41505
205.000	0.672149	1.76798	1.76798	1.76798	3.60000	3.60000	1.41441
210.000	0.672149	1.77840	1.77840	1.77840	3.60000	3.60000	1.41381
215.000	0.672149	1.78882	1.78882	1.78882	3.60000	3.60000	1.41301
220.000	0.672149	1.79925	1.79925	1.79925	3.60000	3.60000	1.41181
225.000	0.672149	1.80969	1.80969	1.80969	3.60000	3.60000	1.41328
230.000	0.672149	1.82015	1.82015	1.82015	3.60000	3.60000	1.41262
235.000	0.672149	1.83062	1.83062	1.83062	3.60000	3.60000	1.41175
240.000	0.672149	1.84110	1.84110	1.84110	3.60000	3.25354	1.37142
245.000	0.672149	1.85161	1.85161	1.85161	3.60000	3.60000	1.41353

(CONTINUED)

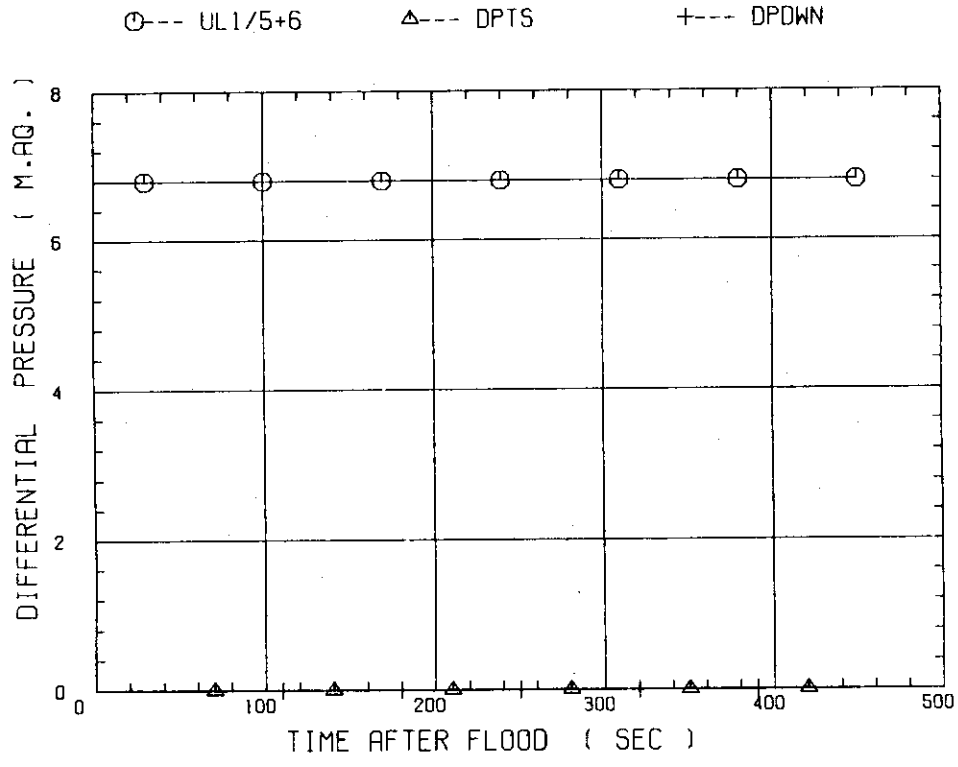
MOVEMENT OF BOUNDARIES

TIME	LIQ.BOIL	QUENCHPT	SATURATE	TRA-DISP	REWETTED	LIQ. LEV	PRESHEAD
(SEC)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
250.000	0.672149	1.86213	1.86213	1.86213	3.60000	3.60000	1.41281
255.000	0.672149	1.87267	1.87267	1.87267	3.60000	3.60000	1.41187
260.000	0.672149	1.88324	1.88324	1.88324	3.60000	3.60000	1.41491
265.000	0.672149	1.89382	1.89382	1.89382	3.60000	3.60000	1.41471
270.000	0.672149	1.90443	1.90443	1.90443	3.60000	3.60000	1.41395
275.000	0.672149	1.91507	1.91507	1.91507	3.60000	3.60000	1.41295
280.000	0.672149	1.92572	1.92572	1.92572	3.60000	3.60000	1.41679
285.000	0.672149	1.93634	1.93634	1.93634	3.60000	3.60000	1.41623
290.000	0.672149	1.94694	1.94694	1.94694	3.60000	3.60000	1.41547
295.000	0.672149	1.95751	1.95751	1.95751	3.60000	3.60000	1.41440
300.000	0.672149	1.96801	1.96801	1.96801	3.60000	3.60000	1.41858
305.000	0.672149	1.97839	1.97839	1.97839	3.60000	3.60000	1.41803
310.000	0.672149	1.98862	1.98862	1.98862	3.60000	3.60000	1.41729
315.000	0.672149	1.99872	1.99872	1.99872	3.60000	3.60000	1.41617
320.000	0.672149	2.00870	2.00870	2.00870	3.60000	3.60000	1.42069
325.000	0.672149	2.01857	2.01857	2.01857	3.60000	3.60000	1.42010
330.000	0.672149	2.02833	2.02833	2.02833	3.60000	3.60000	1.41934
335.000	0.672149	2.03798	2.03798	2.03798	3.60000	3.60000	1.41828
340.000	0.672149	2.04753	2.04753	2.04753	3.60000	3.60000	1.42286
345.000	0.672149	2.05702	2.05702	2.05702	3.60000	3.60000	1.42227
350.000	0.672149	2.06643	2.06643	2.06643	3.60000	3.60000	1.42154
355.000	0.672149	2.07576	2.07576	2.07576	3.60000	3.60000	1.42060
360.000	0.672149	2.08500	2.08500	2.08500	3.60000	3.60000	1.42502
365.000	0.672149	2.09421	2.09421	2.09421	3.60000	3.60000	1.42444
370.000	0.672149	2.10336	2.10336	2.10336	3.60000	3.60000	1.42373
375.000	0.672149	2.11246	2.11246	2.11246	3.60000	3.60000	1.42288
380.000	0.672149	2.12149	2.12149	2.12149	3.60000	3.60000	1.42505
385.000	0.672149	2.13049	2.13049	2.13049	3.60000	3.60000	1.42645
390.000	0.672149	2.13946	2.13946	2.13946	3.60000	3.60000	1.42579
395.000	0.672149	2.14839	2.14839	2.14839	3.60000	3.60000	1.42502
400.000	0.672149	2.15727	2.15727	2.15727	3.60000	3.60000	1.42407
405.000	0.672149	2.16621	2.16621	2.16621	3.60000	3.60000	1.42796
410.000	0.672149	2.17567	2.17567	2.17567	3.60000	3.60000	1.42711
415.000	0.672149	2.18575	2.18575	2.18575	3.60000	3.60000	1.42630
420.000	0.672149	2.19657	2.19657	2.19657	3.60000	3.60000	1.42545
425.000	0.672149	2.20807	2.20807	2.20807	3.60000	3.60000	1.42883
430.000	0.672149	2.21962	2.21962	2.21962	3.60000	3.60000	1.42821
435.000	0.672149	2.23115	2.23115	2.23115	3.60000	3.60000	1.42747
440.000	0.672149	2.24263	2.24263	2.24263	3.60000	3.60000	1.43133
445.000	0.672149	2.25411	2.25411	2.25411	3.60000	3.60000	1.43022
450.000	0.672149	2.26560	2.26560	2.26560	3.60000	3.60000	1.42915

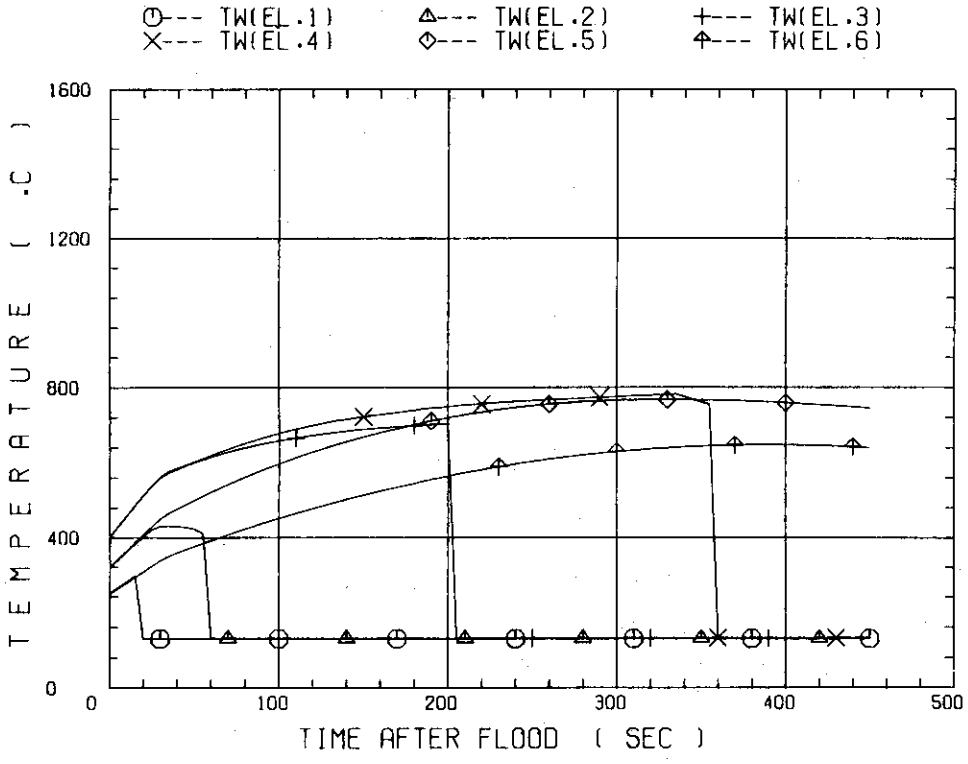
TEST CALCULATION OF RUN 6033 (S6033X)
TEMPERATURE PROFILE OF FUEL SURFACE



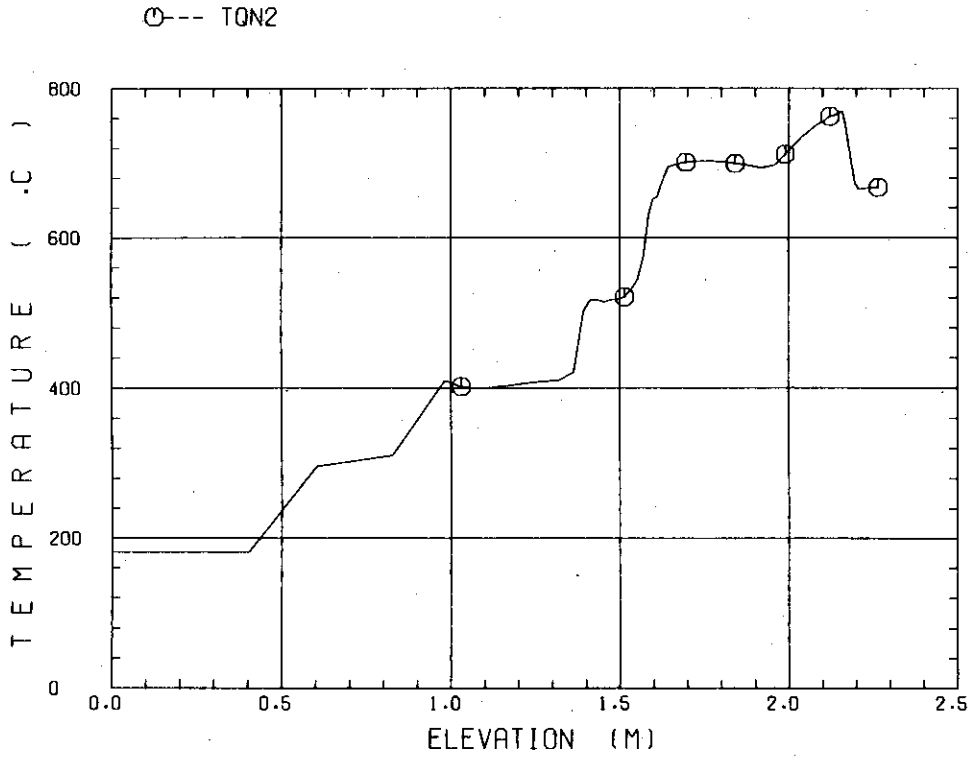
TEST CALCULATION OF RUN 6033 (S6033X)
UL(1),DPTS,DPDWN



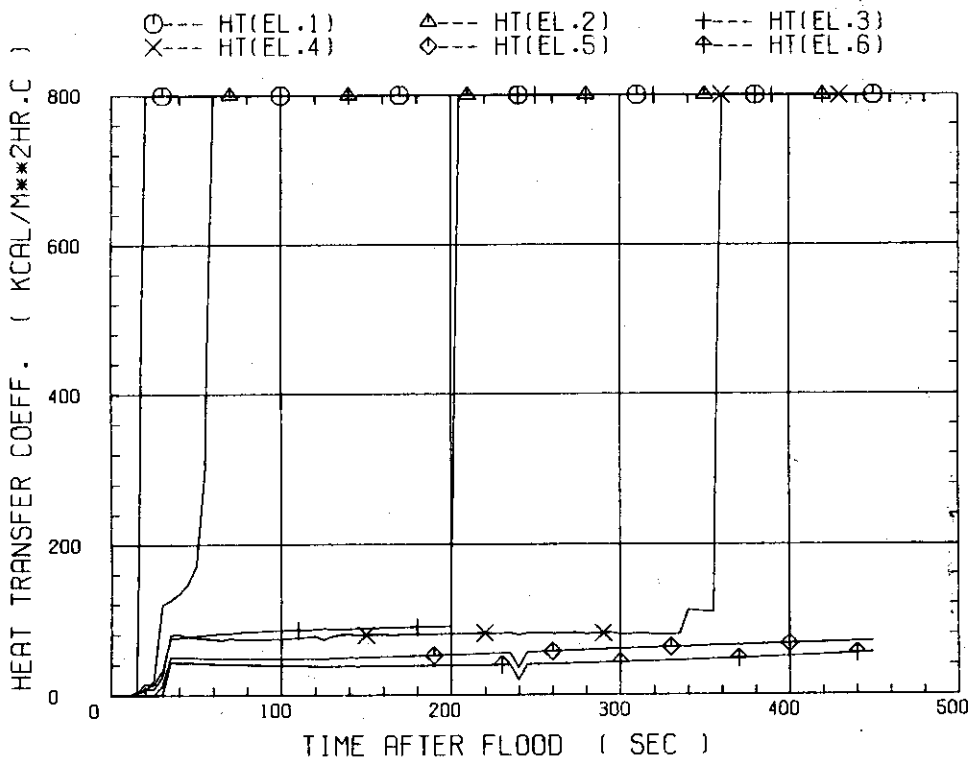
TEST CALCULATION OF RUN 6033 (S6033X)
TEMPERATURE HISTORY



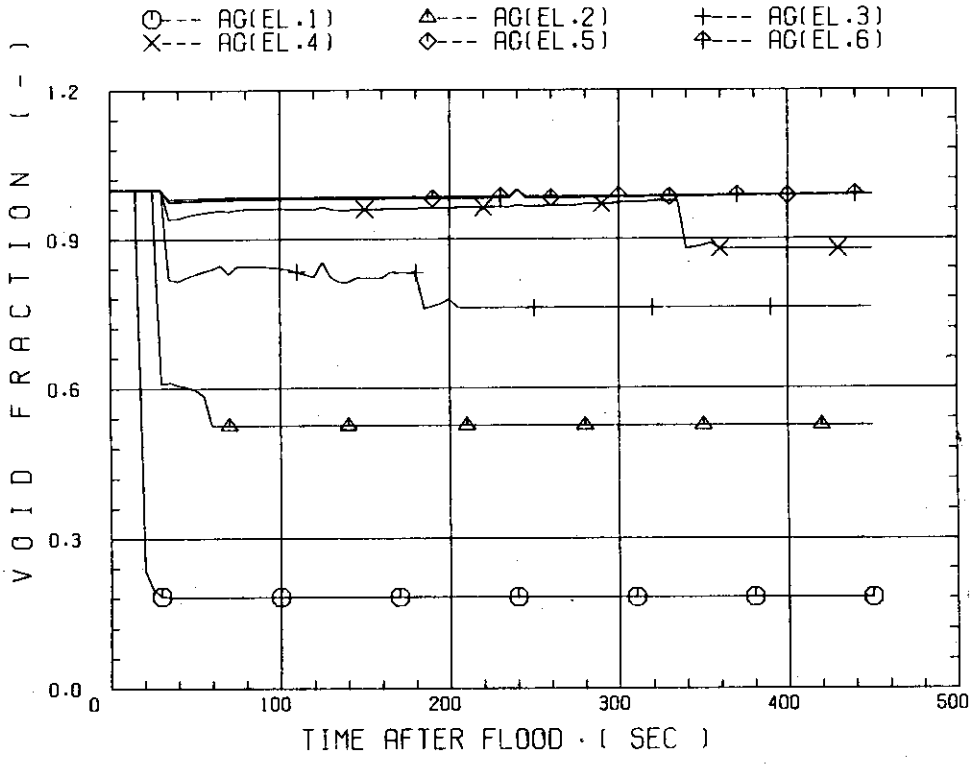
TEST CALCULATION OF RUN 6033 (S6033X)
QUENCH TEMPERATURE



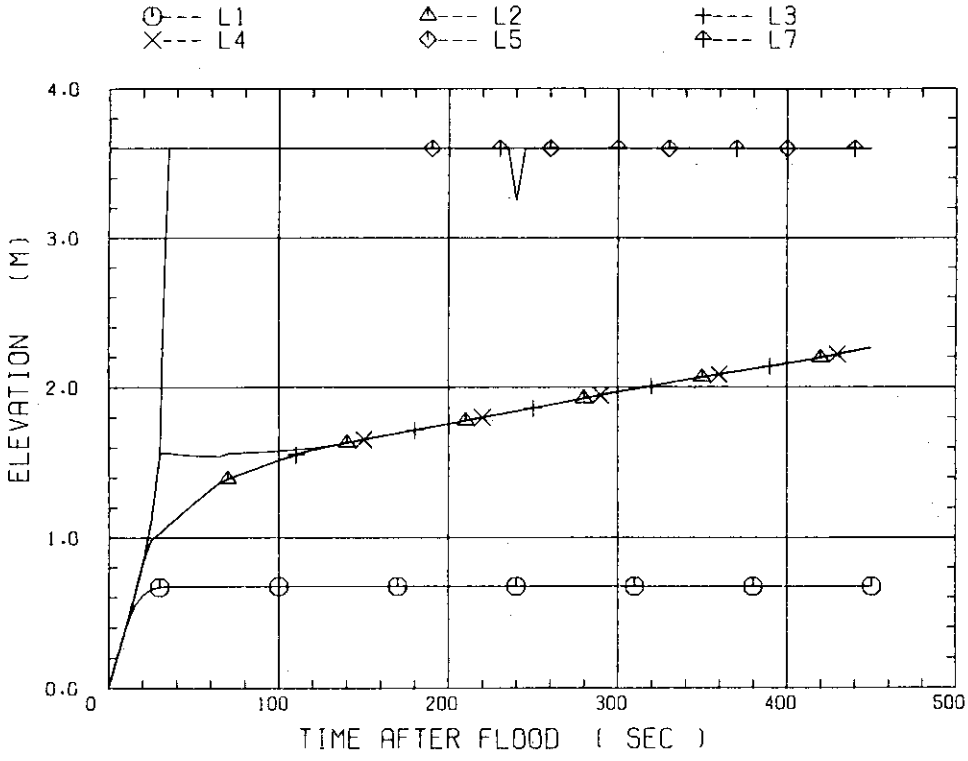
TEST CALCULATION OF RUN 6033 (S6033X)
HEATTRANSFER COEFFICIENT



TEST CALCULATION OF RUN 6033 (S6033X)
VOIDFRACTION HISTORY



TEST CALCULATION OF RUN 6033 (S6033X)
MOVEMENT OF BOUNDARIES



TEST CALCULATION OF RUN 6033 (S6033X)
GLOUT,GOUT,MASS BALANCE