REACTIVITY CONTROL SYSTEMS

CEA DROP TIME

LIMITING CONDITION FOR OPERATION

3.1.3.4 The individual full length (shutdown and control) CEA drop time, from a fully withdrawn position, shall be ≤ 3.5 seconds and the arithmetic average of the CEA drop times of all full length CEAs, from a fully withdrawn position, shall be ≤ 3.2 seconds from when the electrical power is interrupted to the CEA drive mechanisms until the CEAs reach their 90 percent insertion positions with:

a. $T_{avg} \geq 525°F$, and

b. All reactor coolant pumps operating.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With the CEA drop times determined to exceed either of the above limits, restore the CEA drop times to within the above limits prior to proceeding to MODE 1 or 2.

b. With the CEA drop times within limits but determined at less than full reactor coolant flow, operation may proceed provided THERMAL POWER is restricted to less than or equal to the maximum THERMAL POWER level allowable for the reactor coolant pump combination operating at the time of CEA drop time determination.

SURVEILLANCE REQUIREMENTS

4.1.3.4 The CEA drop time of full length CEAs shall be demonstrated through measurement prior to reactor criticality:

a. For all CEAs following each removal of the reactor vessel head,

b. For specifically affected individuals CEAs following any maintenance on or modification to the CEA drive system which could affect the drop time of those specific CEAs, and

c. At least once per 18 months.

BASES

CEA positions and OPERABILITY of the CEA position indicators are required to be verified on a nominal basis of once per 12 hours with more frequent verifications required if an automatic monitoring channel is inoperable. These verification frequencies are adequate for assuring that the applicable LCO's are satisfied.

The average CEA drop time restriction is consistent with the assumed CEA drop time used in the accident analysis. The maximum CEA drop time restriction is used to limit the CEA drop time distribution about the average to that used in the accident analysis. Measurement with $T_{avg} \geq$ 525°F and with all reactor coolant pumps operating ensures that the measured drop times will be representative of insertion times experienced during a reactor trip at operating conditions.

The establishment of LSSS and LCOs require that the expected long and short term behavior of the radial peaking factors be determined. The long term behavior relates to the variation of the steady state radial peaking factors with core burnup and is affected by the amount of CEA insertion assumed, the portion of a burnup cycle over which such insertion is assumed and the expected power level variation throughout the cycle. The short term behavior relates to transient perturbations to the steady-state radial peaks due to radial xenon redistribution. The magnitudes of such perturbations depend upon the expected use of the CEAs during anticipated power reductions and load maneuvering. Analyses are performed based on the expected mode of operation of the NSSS (base load, load following, etc.) and from these analyses CEA insertions are determined and a consistent set of radial peaking factors are defined. The Long Term Steady State and Short Term Insertion Limits are determined based upon the assumed mode of operation used in the analyses and provide a means of preserving the assumptions on CEA insertions used. The limits specified serve to limit the behavior of the radial peaking factors within the bounds determined from analysis. The actions specified serve to limit the extent of radial xenon redistribution effects to those accommodated in the analyses. The Long and Short Term Insertion Limits of Specifications 3.1.3.6 and 3.1.3.7 are specified for the plant which has been designed for primarily base loaded operation but which has the ability to accommodate a limited amount of load maneuvering.

The Transient Insertion Limits of Specification 3.1.3.6 and the Shutdown CEA Insertion Limits of Specification 3.1.3.5 ensure that 1) the minimum SHUTDOWN MARGIN is maintained, and 2) the potential effects of a CEA ejection accident are limited to acceptable levels. Long term operation at the Transient Insertion Limits is not permitted since such operation could have effects on the core power distribution which could invalidate assumptions used to determine the behavior of the radial peaking factors.

SUMMARY

During the ANO-2 Cycle 7 start-up testing, the maximum drop time for individual Control Element Assemblies (CEA's) exceeded the Technical Specification (3/4.1.3.4) maximum CEA drop time value of 3.0 seconds. This adverse change in the measured CEA drop times was revealed by new measurement methodology and was not caused by any type of mechanical degradation of the CEA's or assembly guide tubes. A revised analysis of all events was completed in support of a CEA drop time emergency Technical Specification change to 3.2 seconds. In order to show acceptable results, with a minimum of COLSS and/or CPCS penalties, the revised analyses credited space-time kinetics.

When the final CEA drop time testing was completed, the margin between the slowest CEA and Technical Specification CEA drop time was comparable to expected cycle-to-cycle variations. Since failure to pass the CEA drop time test precludes entering Mode 2, AP&L would like to increase the margin between the Technical Specification value and the measured times before the Cycle 8 start-up without any further loss of COLSS and/or CPCS thermal margins.

The analysis method for increasing the time between the measured CEA drop time and the CEA drop time Technical Specification of 3.2 seconds is to credit the measured spatial distribution of CEA's about an average position as opposed to the present safety analysis assumption that all CEA's are at the same axial height as the slowest CEA. The present safety analyses assume that all CEA's drop into the core during a scram at the same time and at the same rate. The drop time is assumed to be that of the slowest CEA. However, the worth of a CEA is a function of the power or neutron flux environment surrounding the CEA. Therefore, the negative reactivity insertion for a distribution of CEA's is more directly correlated to, and can be represented by, the average CEA insertion rather than by the slowest CEA. Based on the measured data, the CEA's do scram with a predictable spatial distribution about the average position.

The proposed method is based on the use of the average CEA position. A set of 3D HERMITE space-time calculations were performed to confirm that the same negative reactivity will be inserted for the case of the CEA's distributed about an average CEA position (the "distributed" case) as the "window shade" case for which all CEA's are assumed to be positioned at the same average CEA position. These 3D HERMITE cases were chosen to cover the range of operating conditions and the limits of the as-measured CEA distributions. From the results of these cases, it is concluded that the "distributed" case will provide at least the same amount of negative reactivity insertion as the "window shade" case. Therefore, the Technical Specification can be changed from the maximum drop time of all CEA's to the average drop time of all the CEA's. To ensure that the safety analyses remain valid for an average CEA drop time Technical Specification, a limit is placed on the distribution of the CEA's. This limit is expressed as a maximum drop time for the slowest CEA in the revised Technical Specification to restrict the CEA drop time distribution to that covered by these analyses.

TABLE OF CONTENTS

1.0 BACKGROUND

During the ANO-2 Cycle 7 start-up testing, the maximum drop time for individual Control Element Assemblies (CEA's) exceeded the Technical Specification (3/4.1.3.4) maximum CEA drop time value of 3.0 seconds. This adverse change in the measured CEA drop times was revealed by new measurement methodology and was not caused by any type of mechanical degradation of the CEA's or assembly guide tubes. The testing method used previously for measuring CEA drop times involved interrupting the power to the Control Element Drive Mechanism (CEDM) from each individual CEDM breaker. The new test method, which is consistent with the actual CEA scram sequence, involved interrupting the power to all the CEDM's simultaneously via the main trip breakers. The additional time delay is associated with the difference between the electromagnetic decay time of multiple CEDM coils and the decay time of an individual coil.

Low power events were reanalyzed for the longer CEA drop times in support of an emergency Technical Specification waiver for low power testing (Reference 1). Later, a revised analysis of all events was completed in support of a CEA drop time Technical Specification change to 3.2 seconds (Reference 2). In order to show acceptable results with a minimum of COLSS and/or CPCS penalties, the revised analyses credited space-time kinetics, in conjunction with the new CEA drop time curve to calculate the time dependent reactivity scram insertion (References 1 and 2). The CPCS power uncertainty multiplier (BERR1) was increased 0.5% in support of the revised analyses. However, no COLSS thermal margin penalties were required. This Technical Specification change was approved by the NRC in Reference 3.

When the final CEA drop time testing was completed, the margin between the slowest CEA and Technical Specification CEA drop time was 20 milliseconds: (3.20 - 3.18 seconds). This CEA drop time margin is comparable to expected cycle-to-cycle variations. Since failure to pass the CEA drop time test precludes entering Mode 2, AP&L would like to increase the margin between the Technical Specification value and the measured times before the Cycle 8 start-up without any further loss of CPCS margin to trip. The analysis method for increasing the time between the measured CEA drop time and the CEA drop time Technical Specification of 3.2 seconds is to credit the measured spatial distribution of CEA's about an average position as opposed to the present safety analysis assumption that all CEA's are at the same axial height as the slowest CEA.

2.0 PRESENT SAFETY ANALYSIS

Figure 2.1 shows the logic diagram of the pertinent safety analysis data used to support the revision of the CEA drop time Technical Specification from 3.0 to 3.2 seconds discussed in Reference 2 and approved by the NRC in Reference 3. Of interest are the three "icons" of Figure 2.1 representing the scram curves, the CEA drop time curve and the time dependent reactivity insertion data. Figure 2.2 illustrates a typical space-time scram curve generated using FIESTA or 1D HERMITE, References 4 and 5 respectively. A family of scram curves was generated parametric in initial axial shape index (ASI), total scram worth and time in cycle to bound the range of operating conditions. A CEA position versus time curve, Figure 2.3, was generated

based on measured data from the May 1988 CEA drop time testing. The Technical Specification basis is that the safety analysis curve bounds all CEA drop times at 90% insertion. Any individual CEA drop time greater than 3.2 seconds is not considered acceptable. The scram curves and the CEA drop time curve are combined to provide the time dependent normalized reactivity insertion during the transient of interest, Figure 2.4. This curve is combined with the total static scram worth (All Rods In (ARI) minus Worst Rod Stuck Out (WRSO)) as calculated by ROCS, Reference 6. Inherent in the ANO-2 safety analyses is the assumption that the time dependent negative reactivity insertion is governed by the slowest CEA. Hence, the Technical Specification requirement that all CEA's fall within the 3.2 second drop time at 90% insertion. This assumption will be modified to expand the margin between the measured and safety analysis CEA drop time.

3.0 MEASURED DATA

Figure 3.1 shows the average (arithmetic) position of all the CEA's as well as the maximum and minimum envelopes based upon the detailed CEA drop time testing data from the May 18, 1988 test provided in Appendix A. The envelopes are not derived from the slowest and fastest CEA, but rather the maximum and minimum position of all the CEA's at each time point. Individual CEA drop times relative to the average drop time of all the CEA's are presented in Figure 3.2 at several average CEA positions: 1%, 25%, 50%, 75% and 90% inserted.

As indicated in Figure 3.2 the scatter in the drop time about the average increases with CEA insertion and varies with CEA number. The low numbered CEA's fall into the core faster than the higher numbered CEA's. As shown in Figure 3.3, the CEA's are numbered starting at the center of the core and increasing in an outward spiral to the core periphery. Therefore, the CEA drop times are the fastest at the core interior and get progressively slower towards the core periphery.

The spatial distribution of CEA's about an average is primarily due to the distribution of CEA extension shaft weights. The weight of the extension shafts of the ANO-2 CEA's vary as a function of their position in the core. The longer heavier extension shafts are located at the core interior and they get progressively shorter and lighter towards the core periphery. Table 3.1 provides the total CEA drop weight for each CEA. As shown in Figure 3.4 the CEA drop time can be approximated as a linear function of the CEA drop weight.

4.0 AVERAGE DROP TIME METHOD

The present safety analyses assume that all CEA's drop into the core during a scram at the same time and at the same rate. The drop time is assumed to be governed by the slowest CEA. However, the worth of a CEA is a direct function of the power or neutron flux environment surrounding the CEA. Consequently, the worth of all the CEA's at any time during the scram depends on the average flux level seen by all the CEA's. During the critical part of the scram the lead or faster CEA's will be in higher axial flux regions and will make a greater relative contribution to the net negative reactivity scram worth inserted than the slower or lagging CEA's. Therefore, the negative reactivity insertion for any reasonable distribution

of CEA's is more directly correlated to, and can be represented by, the average CEA insertion rather than by the slowest. Based on the measured data the CEA's do not scram at the same time and at the same rate but have a predictable spatial distribution about the average.

The proposed method uses the average CEA drop time. The appropriateness of the use of the average drop time was confirmed by performing a set of 3D HERMITE space-time calculations. These show that the same negative reactivity will be inserted for the case of the CEA's distributed about an average CEA position (the "distributed case") as for the case for which all CEA's are assumed to be positioned at the average CEA position (the "window shade case").

Typically, 1D analysis methods are used to calculate the CEA reactivity insertion during a scram. This is an acceptable simplification for "window shade" modeling of the CEA insertion. However, 3D methods are needed to model the CEA spatial distributions.

These calculations are performed using 3D HERMITE space time methods, as opposed to static methods using ROCS, because the 1D scram curves used in the revised analyses to extend the CEA drop time from 3.0 to 3.2 seconds were based on space-time calculations. The differences between static and space-time calculations are illustrated in Figures 4.1 and 4.2. Figure 4.1 shows prompt axial neutron distributions calculated by space-time methods during a scram. These are the same response, shape and magnitude, as a static calculation which assumes that the neutrons have reached equilibrium for each time point. The delayed neutron distributions are presented in Figure 4.2. The delayed neutron flux does not shift towards the bottom of the core in response to the CEA insertion as rapidly as the prompt component. In addition the magnitude does not drop off as quickly. It is the accurate representation of the delayed neutron shape during a scram that results in a faster power reduction in the space-time calculations.

These 3D HERMITE cases are a one time analysis to demonstrate that the use of the average CEA drop time is conservative with respect to the use of the measured CEA drop time distribution, and thus to support the redefinition of the CEA drop time Technical Specification to that based on the average CEA drop time.

The 3D HERMITE analyses do not affect the safety analyses of Figure 2.1 which will continue to use the 1D space-time scram curves (assumes "window shade" distribution), the static ARI-WRSO scram worth (assumes a "window shade" distribution), and the same CEA insertion versus time curve. However, the definition of the CEA insertion curve and what the CEA drop test measures will change from "maximum" to "average".

5.0 HERMITE CODE

The HERMITE code was developed at Combustion Engineering for the analysis of design and off-design transients in large PWR's by means of a finite element numerical solution to the multi-dimension, few-group time dependent (space-time) neutron diffusion equation including CEA motion and the feedback effects of fuel temperature, moderator temperature, moderator density and xenon. A topical report (Reference 5) describing the code, its

input and verification was submitted to the Nuclear Regulatory Commission (NRC) in March 1976. Submittal was made at the same time as a separate C-E topical report on the CEA ejection accident (Reference 7). NRC approval for both topical reports was obtained in July, 1976.

Since the HERMITE Topical Report was approved, the code has undergone a number of incremental improvements and has been applied to a variety of analyses. Key improvements include the addition of the Nodal Expansion Method (NEM) neutronics (Reference 6) and the inclusion of the TORC Thermal-Hydraulic calculation (Reference 8). NEM was used for this analysis but the TORC calculation was not.

HERMITE (including NEM and TORC) has been applied over the years in a variety of specific licensing analyses on specific dockets. The major applications have included one-dimensional space-time calculations for the loss of flow accident (SONGS-2/3, Waterford-3 and Palo Verde-1/2/3), three-dimensional calculations for the steam line break accident (SONGS-2/3, Waterford-3, Calvert Cliffs-1/2 and St. Lucie-2), and two-dimensional analysis of asymmetric steam generator events (SONGS-2/3, Waterford-3, Palo Verde-1/2/3).

6.0 CASE SELECTION

Three sets of cases were chosen to demonstrate, for the range of operating conditions, that the "distributed" case provides essentially the same time dependent reactivity insertion as the "window shade" case.

The first set of demonstration cases ("window shade" case and "distributed" case) was performed at nominal operating conditions; beginning of cycle (BOC), hot full power (HFP), equilibrium thermal hydraulic and xenon conditions (approximately 0 ASI). ASI is defined as the following ratio: the power in the bottom half of the core minus the power in the top half of the core divided by the sum of the two halves. To simplify the HERMITE input data, the average CEA drop time for each weight group was used for all CEA's in that weight group. The HERMITE CEA position data is shown in Figure 6.1 which is comparable in form and scale to Figure 3.2.

The core power reduction resulting from a given CEA scram pattern is influenced most by the initial axial power distribution, which can be characterized by its ASI. The first set of cases had a nominal power shape with an ASI near zero. A second set of demonstration cases was run for a bottom axial power peaked shape (+.46 ASI) using the same CEA position data as the first set of cases, Figure 6.1, and at the same operating conditions: BOC, HFP, equilibrium thermal hydraulics.

A third set cases was run to show the sensitivity of the distributed case to the spatial distribution of the CEA's about the average. Narrowing the scatter of the distribution will only force the "distributed" case to look more like the "window shade" case. Therefore, the distribution was expanded to increase the time between the fastest and slowest CEA. Again the as-measured CEA drop time data was used as a basis for expanding the distribution. The expanded distribution is presented in Figure 6.2 using a form and scale comparable with Figures 6.1 and 3.2. The third set of cases used the same initial conditions as the first set of cases.

7.0 HERMITE RESULTS

The results from all three sets of cases discussed in the previous section are presented in Figures 7.1, 7.2, and 7.3, respectively. In each set, the "distributed" case provides the same time dependent reactivity insertion as the "window shade" case to within the input modeling and code uncertainties. The results are presented as core power versus time instead of the usual reactivity versus time because the core power reduction is the effect of greatest interest in the safety analyses.

From the results of the three sets of cases, it is concluded that, for the family of CEA drop time distributions that bound the ANO-2 as-measured distribution, Figure 3.2, the "distributed" case will provide at least the same core power reduction (negative reactivity insertion) as the "window shade" case.

8.0 BASIS FOR AVERAGE CEA DROP TIME

Figure 8.1 presents the basis for the average CEA drop time Technical Specification. The safety analysis CEA drop time curve, schematically presented in Figure 2.3, is shown as the solid line. However, it is now the average drop time of all the CEA's rather than a curve that bounds the drop time of all the CEA's. The 3D HERMITE space-time analyses presented in this report show that the "distributed" case provides at least the same time dependent reactivity insertion as the "window shade" case. This is true for any reasonable family of CEA distributions similar to those measured at ANO-2. However, if the distance between the fastest and slowest CEA's becomes too large or the distribution of CEA's deviates significantly from that modeled in this study, then the average CEA position (window shade) may not be representative of the time dependent reactivity insertion. To ensure that the safety analyses remain valid for an average CEA drop time Technical Specification, a limit is placed on the CEA drop time distribution. This will be expressed as a maximum drop time limit on the slowest CEA in the revised Technical Specification. The dashed line in Figure 8.1 is the "maximum" drop time curve and is based on the maximum envelope presented in Figure 3.1. For comparison purposes the as-measured average CEA drop time curve is also shown in Figure 8.1.

9.0 TECHNICAL SPECIFICATION CHANGE

The proposed Technical Specification, Exhibit 9.1, is of the same form as the current Technical Specification. The Technical Specification has been expanded to include the average drop time of all full length CEA's. The average CEA drop time must be less than or equal to 3.2 seconds. The maximum CEA drop time for any individual full length CEA will be changed from 3.2 seconds to 3.5 seconds. However as presented in Exhibit 9.2, the basis for the 3.5 seconds is changed from a limit on the slowest CEA for a "window shade" scram to a limit on the CEA distribution about an average value.

The same action requirements, applicable for the current Technical Specification, will be applied to both the average drop time and the new maximum drop time. The surveillance requirements and frequencies will remain the same as those of the current Technical Specification.

10.0 FUTURE SAFETY ANALYSES

For future reloads, the safety analysis methodology will be unchanged from the present methods as discussed in Section 2.0 of this report except that the CEA drop time will be characterized by the average, consistent with the revised Technical Specification. Any thermal margin penalties applied to CPCS or COLSS will still be determined in future reloads based on the current safety analysis curve shown in Figure 8.1.

As shown in Figure 10.1, what will change for future reloads is the criteria for the CEA drop time test. Instead of the present maximum CEA drop time of 3.2 seconds at 90% inserted, the new criteria will be a maximum drop time of 3.5 seconds at 90% inserted and an average drop time of 3.2 seconds at 90% inserted. The new criteria are shown in Figure 10.2.

The 3D HERMITE methods were used to verify the average CEA drop time concept. That is, the time dependent reactivity insertion of a "window shade" scram at the the average CEA drop time will provide the same reactivity insertion as the more realistic "distributed" case about the same average. Cycle specific reverification is not required as long as the fuel management and CEA drop time characteristics are not significantly changed. Any fuel management change that significantly affects the core wide axial or radial power profiles, such as axial blankets or ultra-low leakage fuel management, may necessitate reverification of the average CEA drop time analysis. Changes that would significantly affect the CEA drop time distribution, such as changes to the CEDM circuits large increases in the core flow pressure drop, changes in the total drop weight of the CEA's or changes in the location of the CEA's, may also require reverification. Barring these type of changes or failure to meet the new Technical Specification limits, reverification of the average drop time analysis will not be required on a cycle-by-cycle basis.

11.0 REFERENCES

1. T. Gene Campbell (AP&L) to Jose Calvo (NRC), "Arkansas Nuclear One - Unit 2, Docket No. 50-368, License No. NPF-6, Request for Temporary Waiver of Compliance, Technical Specification 3/4.1.3.4 - CEA Drop Time," 2CAN058801, May 5, 1988.

2. T. Gene Campbell (AP&L) to Jose Calvo (NRC), "Arkansas Nuclear One - Unit 2, Docket No. 50-368, License No. NPF-6, Request for Emergency License Amendment, Technical Specification 3/4.1.3.4 - CEA Drop Time," 2CAN058802, May 9, 1988.

3. C. Craig Harbuck (NRC) to T. Gene Campbell (AP&L), "Issuance of Amendment No. 84 to Facility Operating License No. NPF-6 - Arkansas Nuclear One, Unit 2 (TAC NO. 68005)," Docket No. 50-368, May 16, 1988.

4. "FIESTA A One Dimensional, Two Group Space-Time Kinetics Code For Calculating PWR Scram Reactivities, "CEN-122(F), November, 1979.

5. "HERMITE A Multi-Dimensional Space-Time Kinetics Code for PWR Transients," CENPD-188-P-A, July 1976.

6. "The ROCS & DIT Computer Codes For Nuclear Design," CENPD-266-P-A, April 1983.

7. "CEA Ejection Analysis," CENPD-190-P-A, July, 1976.

8. "TORC Code A Computer Code for Determining the Thermal Margin of a Reactor Core," CENPD-161-P-A, July 1975.

SAFETY ANALYSIS FLOW CHART
FOR CURRENT CEA DROP TIME ANALYSIS

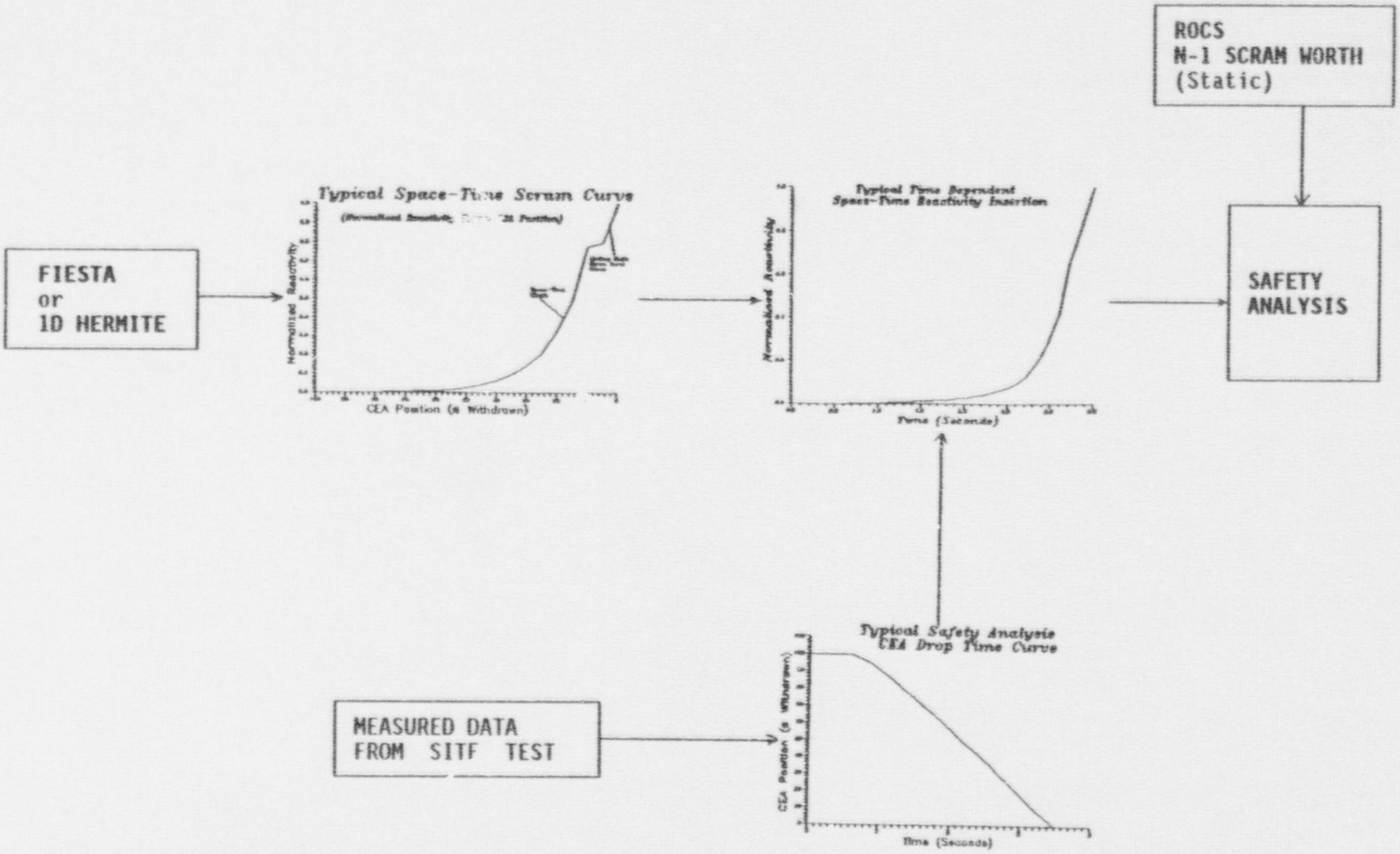


FIGURE 2.1

Typical Space–Time Scram Curve

(Normalized Reactivity Versus CEA Position)

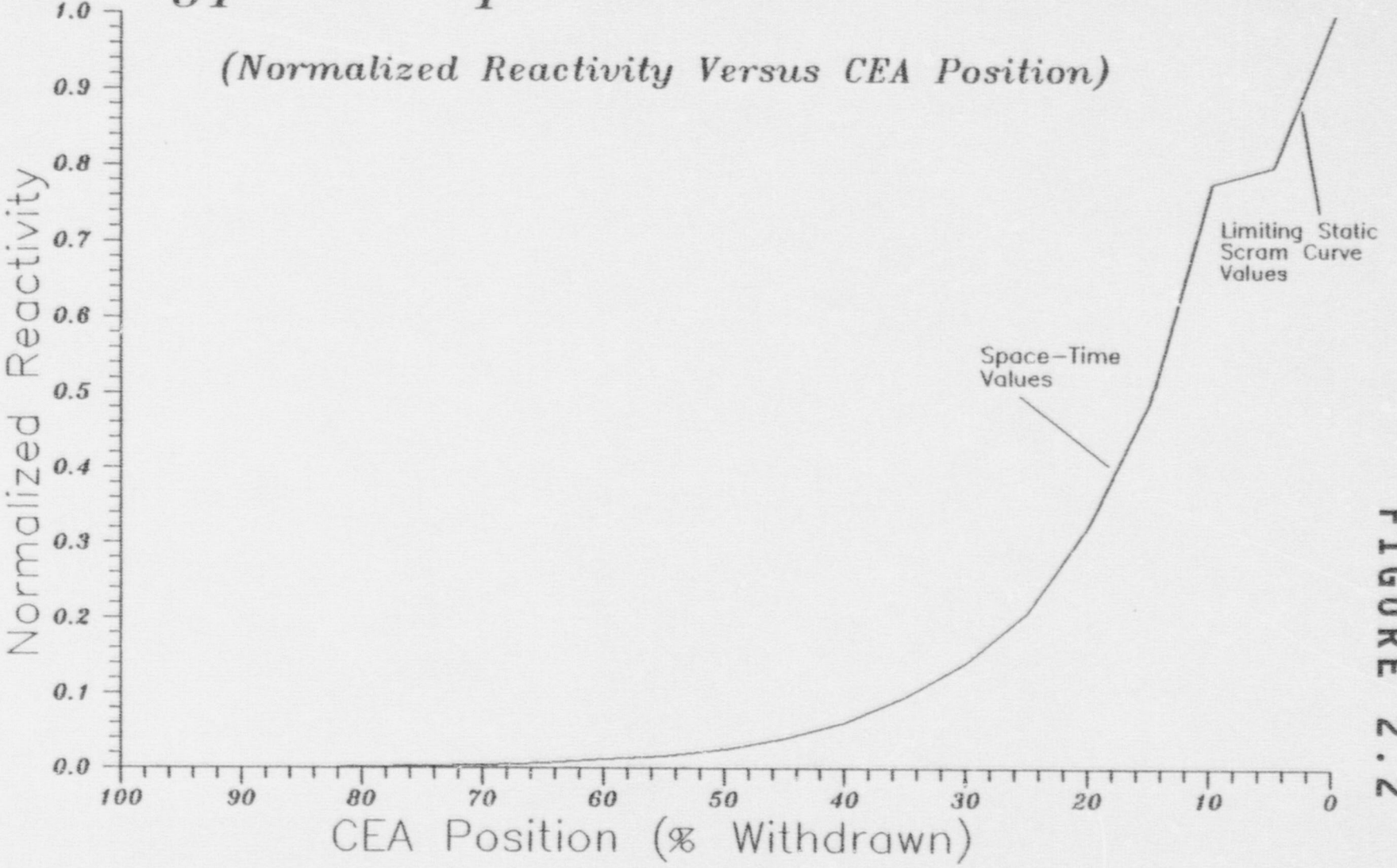


FIGURE 2.2

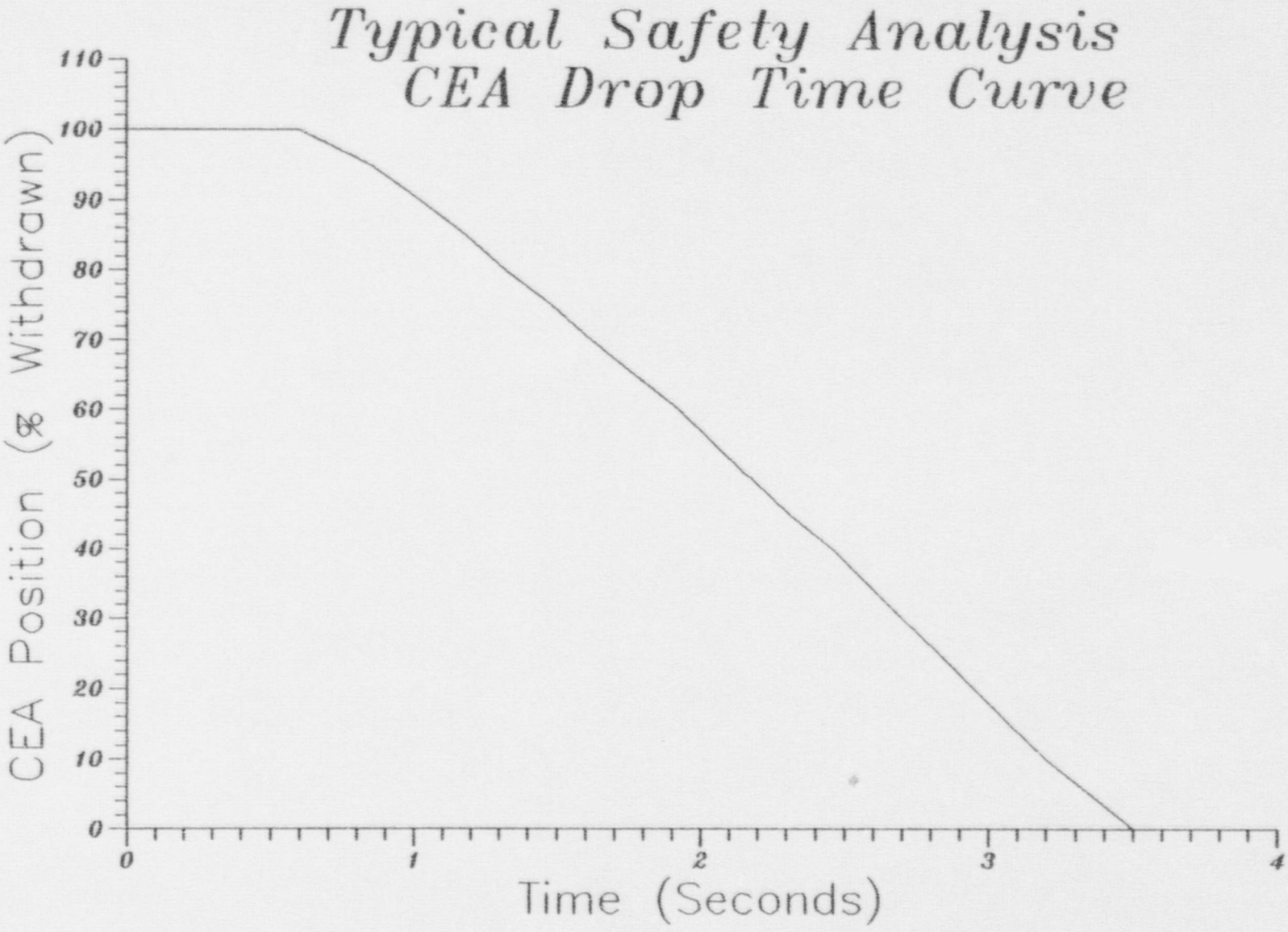

Typical Safety Analysis
CEA Drop Time Curve
CEA Position (% Withdrawn)
110
100
90
80
70
60
50
40
30
20
10
0
0
1
2
3
4
Time (Seconds)

FIGURE 2.3

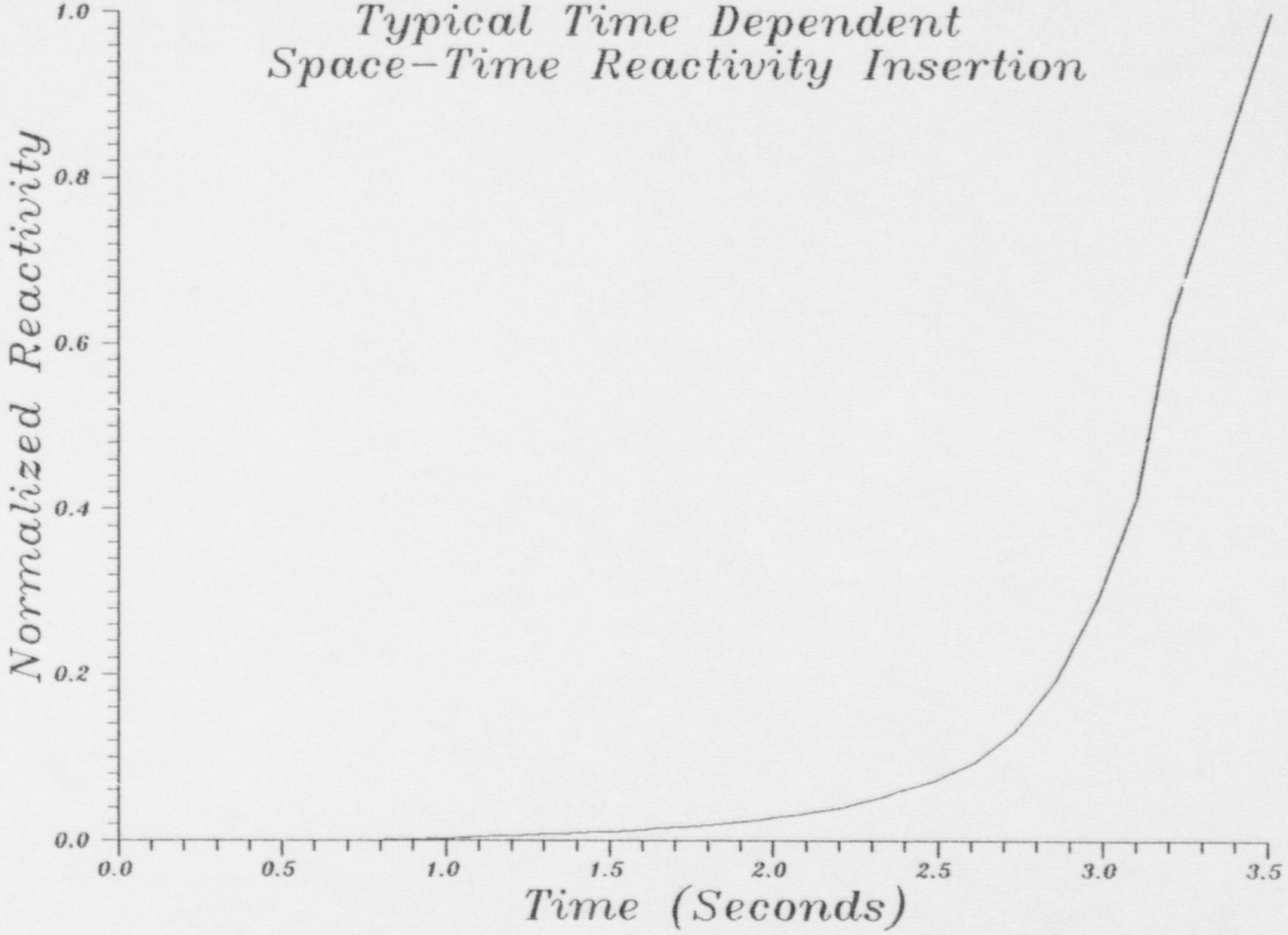

Typical Time Dependent
Space-Time Reactivity Insertion
Normalized Reactivity
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
Time (Seconds)

FIGURE 2.4

TABLE 3.1

ANO-2 CEA WEIGHT ASSIGNMENTS

WEIGHT (lbs)	CEDM NUMBER
232.6	2,3,4,5 6,7,8,9 10,11,12,13 14,16,18,20 15,17,19,21
225.6	1, 30,32,34,36 31,33,35,37
219.6	38,40,42,44 39,41,43,45
216.6	46,47,48,49 50,52,54,56 51,53,55,57
213.6	58,59,60,61 62,64,66,68 63,65,67,69
206.6	70,73,76,79 71,74,77,80 72,75,78,81

ANO-2

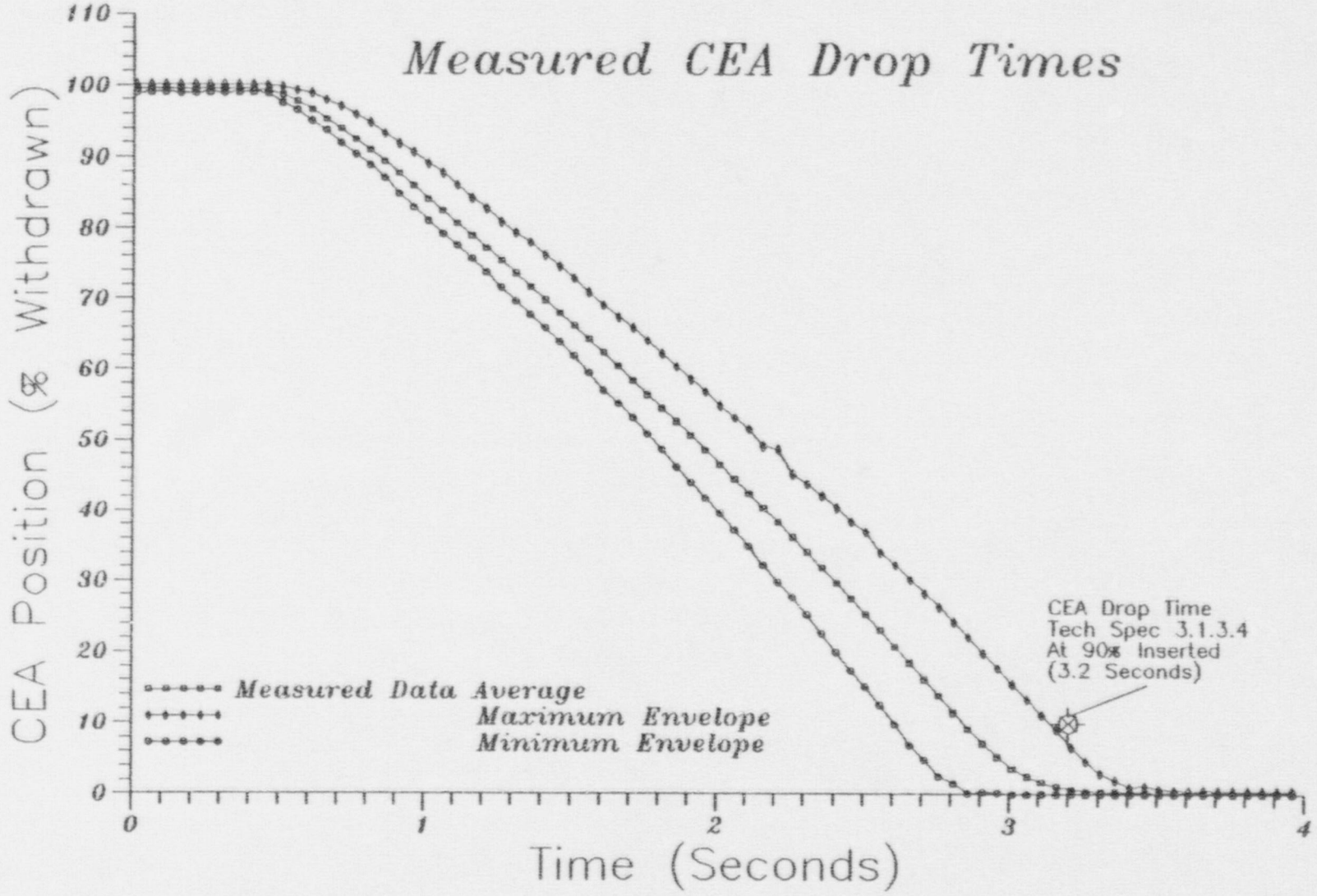


FIGURE 3.1

FIGURE 3.2

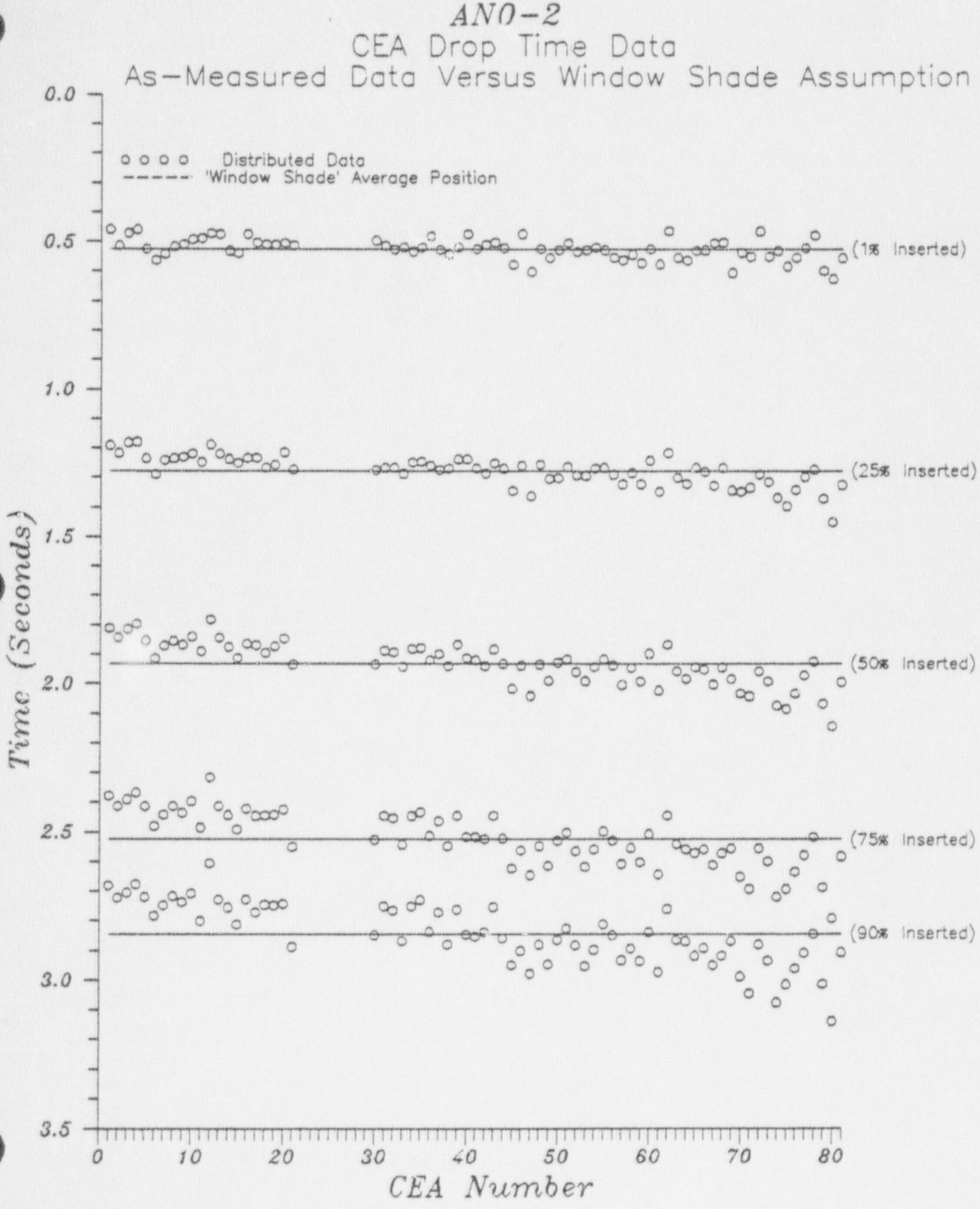

ANO-2
CEA Drop Time Data
As-Measured Data Versus Window Shade Assumption
Distributed Data
'Window Shade' Average Position
(1% Inserted)
(25% Inserted)
(50% Inserted)
(75% Inserted)
(90% Inserted)
Time (Seconds)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0
10
20
30
40
50
60
70
80
CEA Number

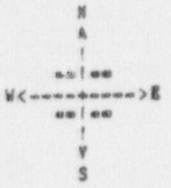
FIGURE 3.3

ARKANSAS NUCLEAR ONE UNIT 2
FULL-CORE CEA LOCATIONS

KEY TO MAP

89
6-1

ASSEMBLY LOCATION
CEA GROUP - CEDM NUMBER



	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
1						01	02 A-73	03	04 A-76	05					
2				06	07	08 3-65	09	10 5-60	11	12 3-66	13	14			
3			15 2-74	16	17 A-53	18	19 1-41	20	21 1-42	22	23 A-54	24	25 2-77		
4		26	27	28 6-47	29	30 B-33	31	32 P-24	33	34 B-34	35	36 6-48	37	38	
5		39	40 A-52	41	42 P-27	43	44 B-17	45	46 B-18	47	48 P-28	49	50 A-55	51	
6	52	53 3-64	54	55 B-32	56	57 4-11	58	59 2-8	60	61 4-12	62	63 B-35	64	65 3-67	66
7	67 A-75	68	69 1-40	70	71 B-16	72	73 B-3	74	75 B-4	76	77 B-19	78	79 1-43	80	81 A-78
8	82	83 5-59	84	85 P-23	86	87 2-7	88	89 6-1	90	91 2-9	92	93 P-25	94	95 5-61	96
9	97 A-72	98	99 1-39	100	101 B-15	102	103 B-2	104	105 B-5	106	107 B-20	108	109 1-44	110	111 A-79
10	112	113 3-63	114	115 B-31	116	117 4-10	118	119 2-6	120	121 4-13	122	123 B-36	124	125 3-68	126
11		127	128 A-51	129	130 P-26	131	132 B-14	133	134 B-21	135	136 P-29	137	138 A-56	139	
12		140	141	142 6-46	143	144 B-30	145	146 P-22	147	148 B-37	149	150 6-49	151	152	
13			153 2-71	154	155 A-50	156	157 1-38	158	159 1-45	160	161 A-57	162	163 2-80		
14				164	165	166 3-62	167	168 5-58	169	170 3-69	171	172			
15						173	174 A-70	175	176 A-81	177					

PLR's are located at CEDM numbers 22, 23, 24, 25, 26, 27, 28, and 29

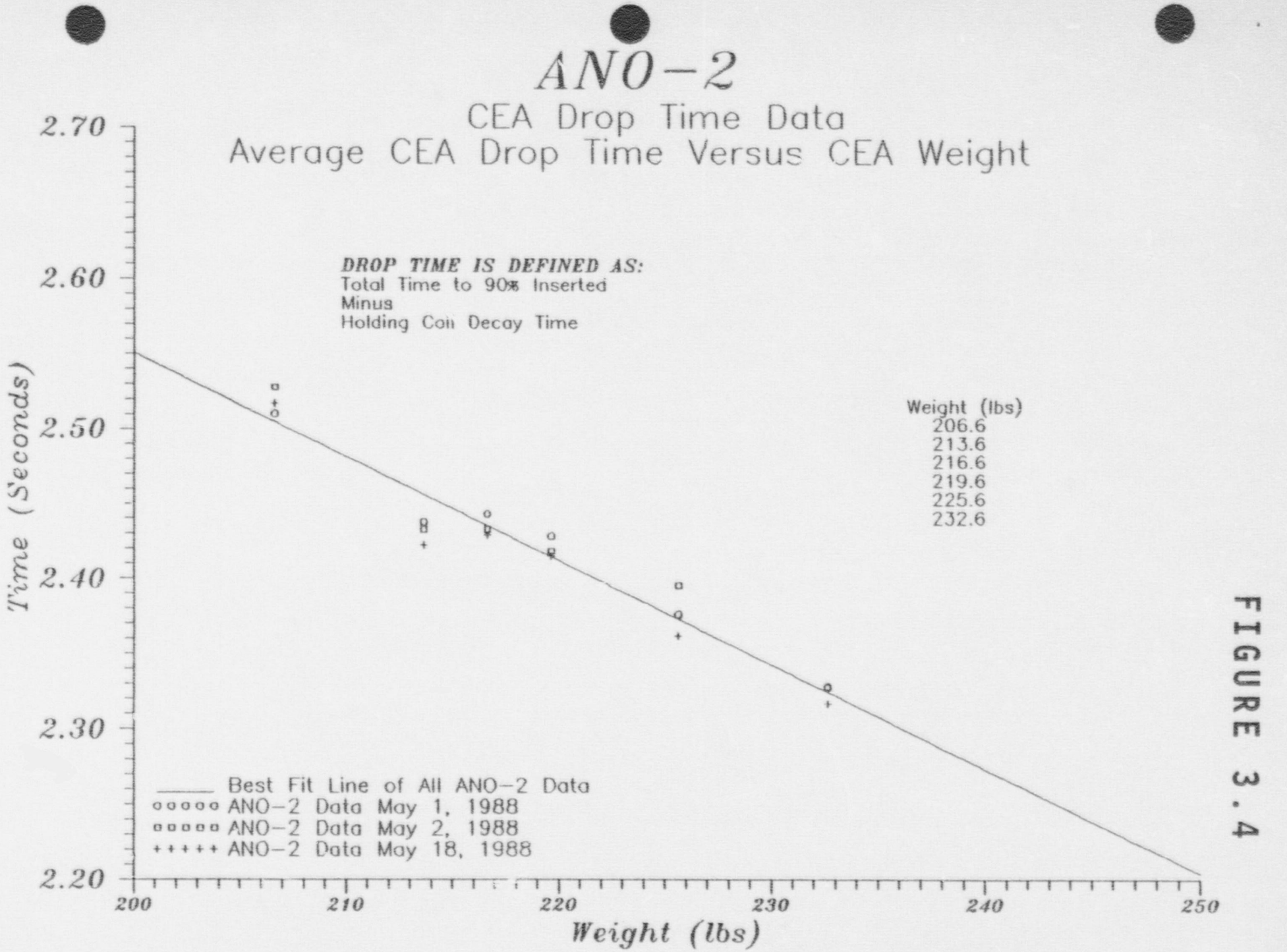

ANO-2
CEA Drop Time Data
Average CEA Drop Time Versus CEA Weight
DROP TIME IS DEFINED AS:
Total Time to 90% Inserted
Minus
Holding Coil Decay Time
Weight (lbs)
206.6
213.6
216.6
219.6
225.6
232.6
Best Fit Line of All ANO-2 Data
ANO-2 Data May 1, 1988
ANO-2 Data May 2, 1988
ANO-2 Data May 18, 1988
Time (Seconds)
2.70
2.60
2.50
2.40
2.30
2.20
200
210
220
230
240
250
Weight (lbs)

FIGURE 3.4

Space-Time Results

Average CEA Drop Time
Relative Normalized Prompt Neutron Distribution During Scram

(Window Shade Case at BOC, Equil Xe, HFP Conditions)

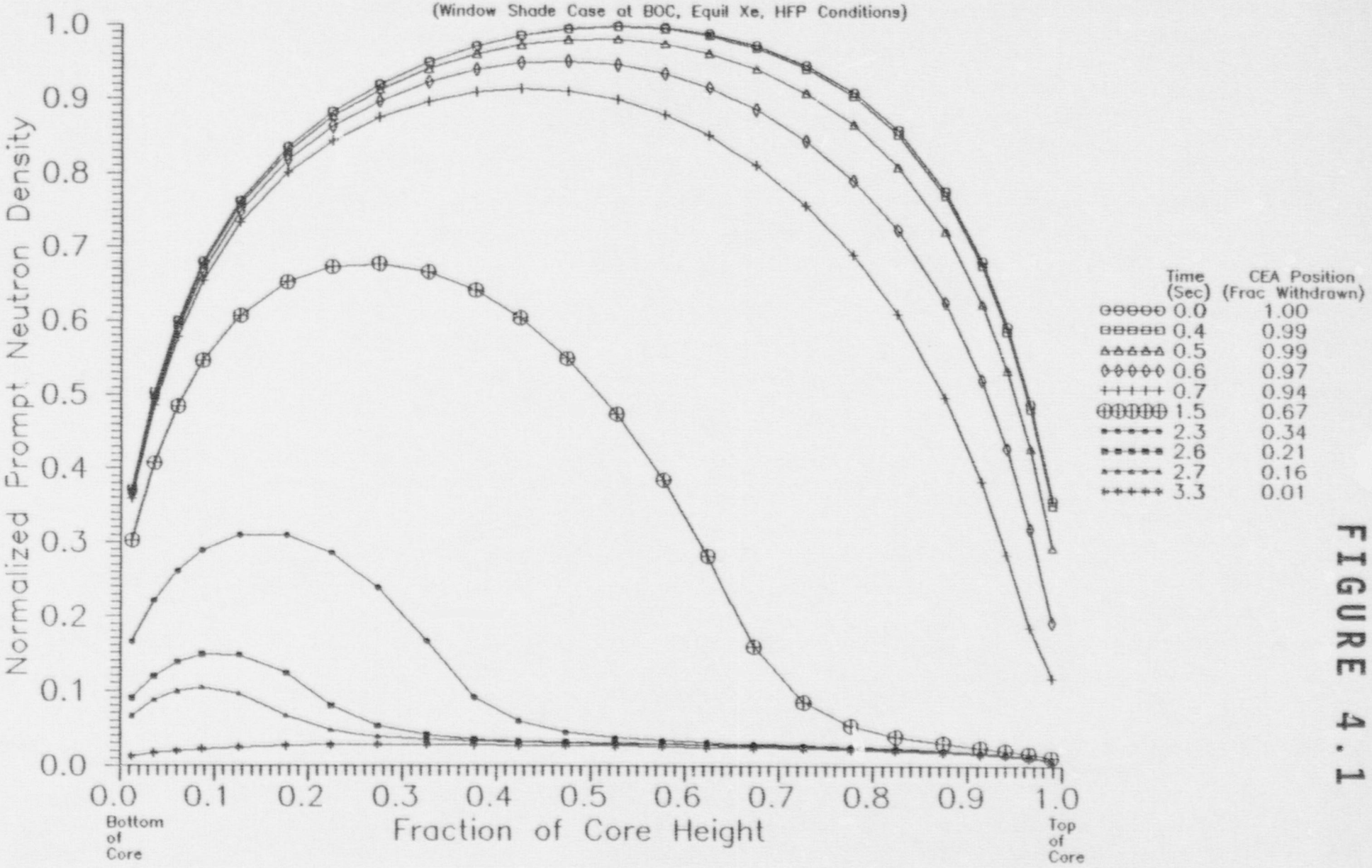


FIGURE 4.1

Space-Time Results

Average CEA Drop Time
Relative Normalized Axial Delayed Neutron Distribution During Scram

(Window Shade Case at BOC, Equil Xe, HFP Conditions)

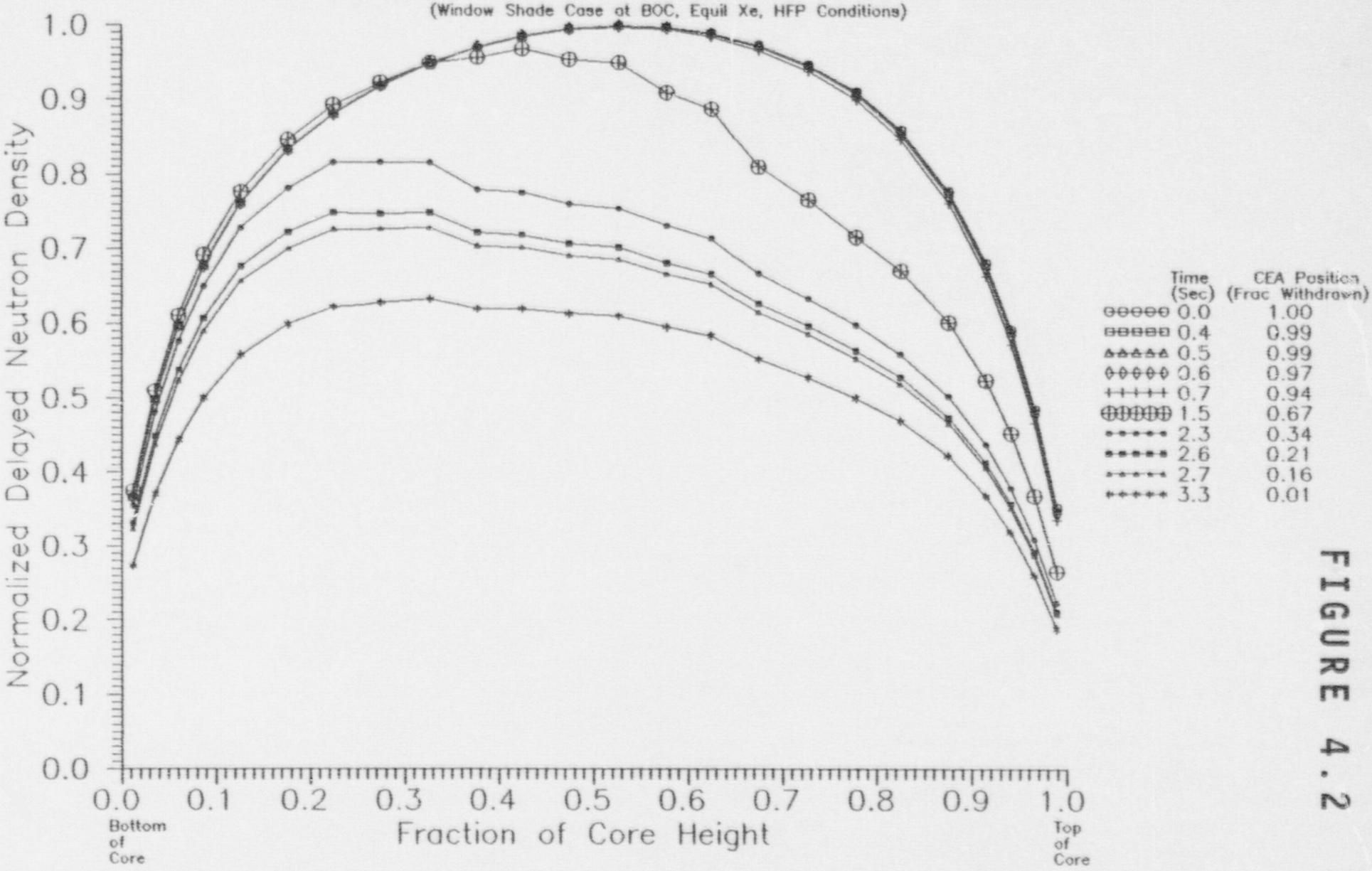


FIGURE 4.2

FIGURE 6.1

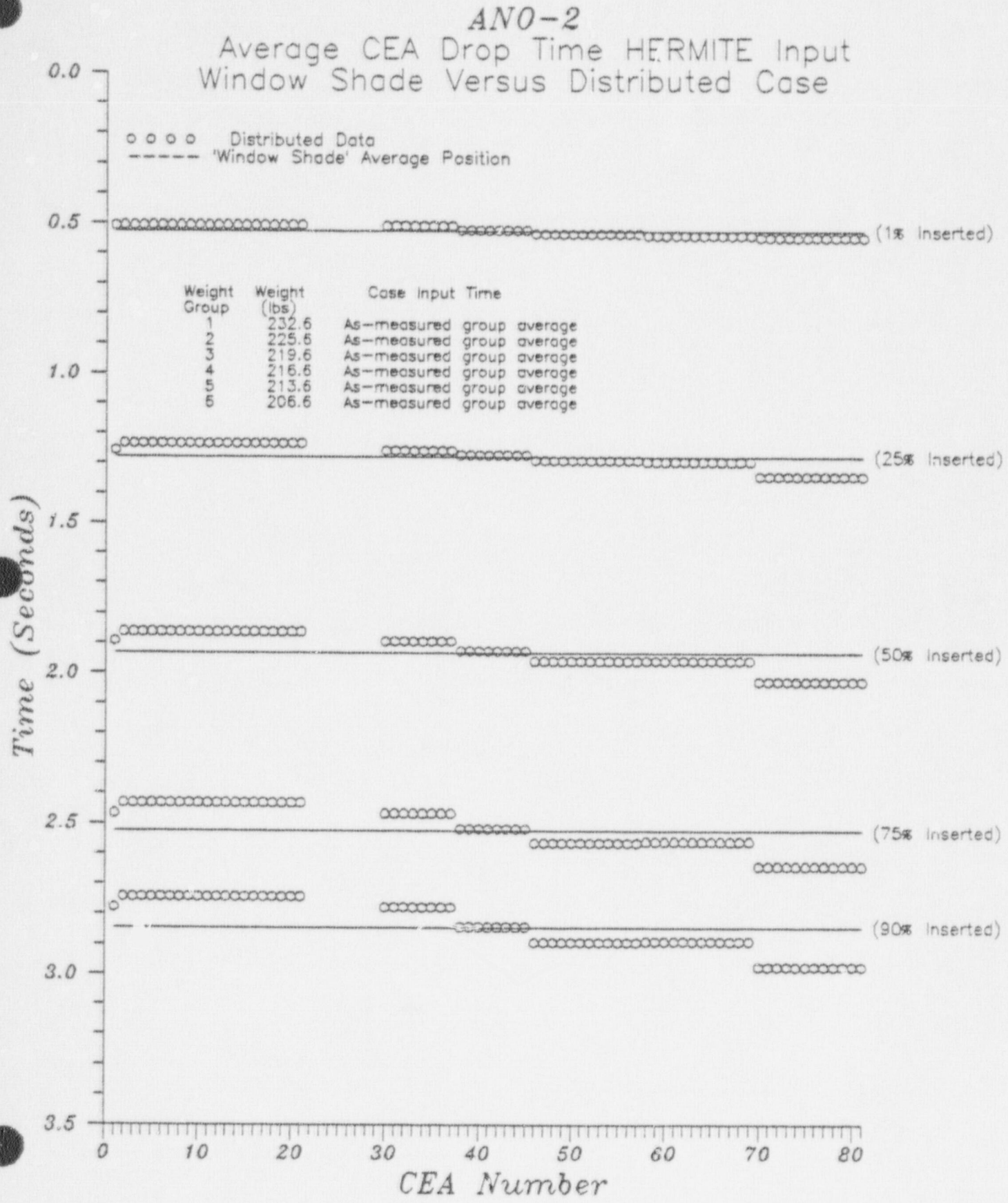
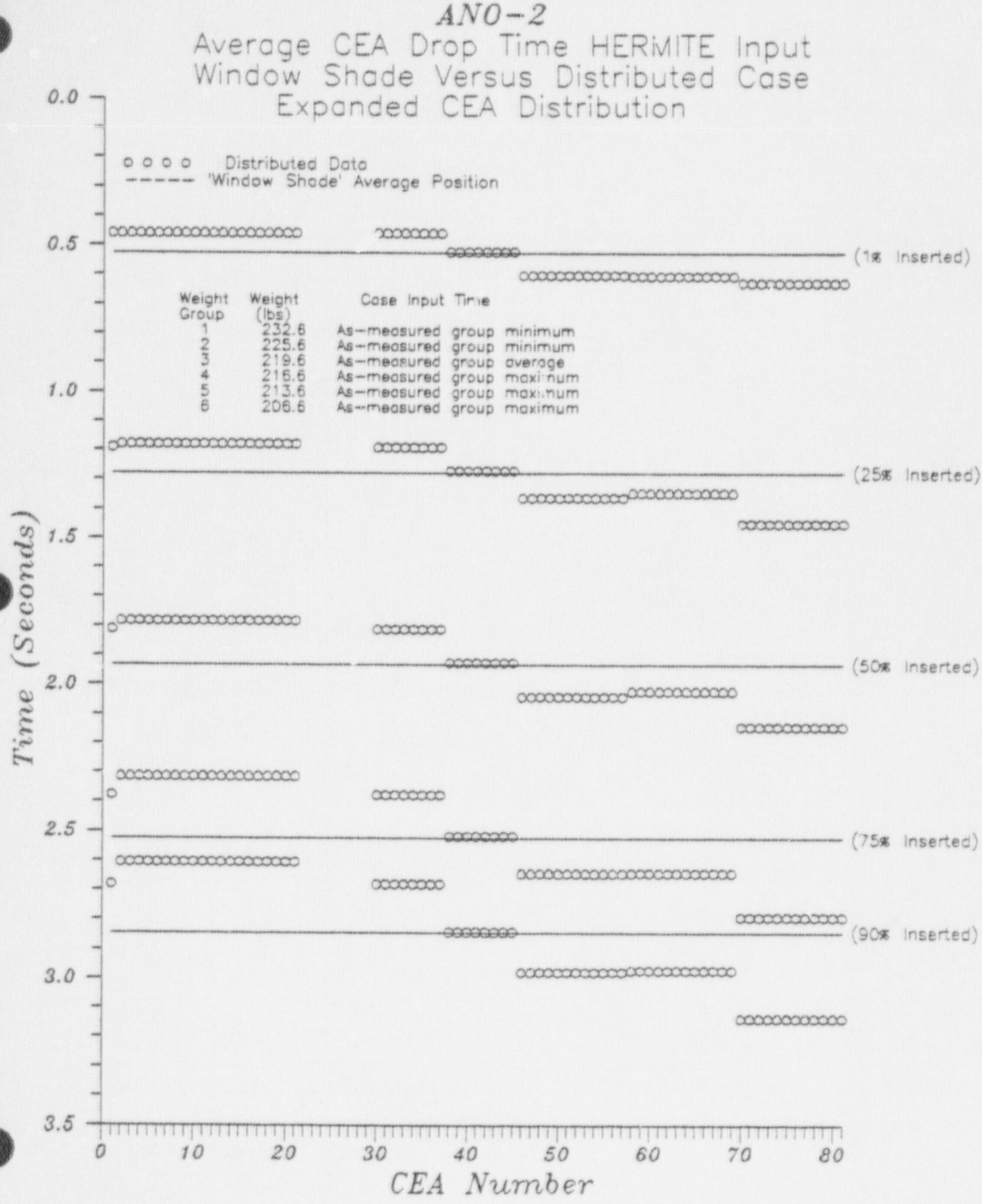
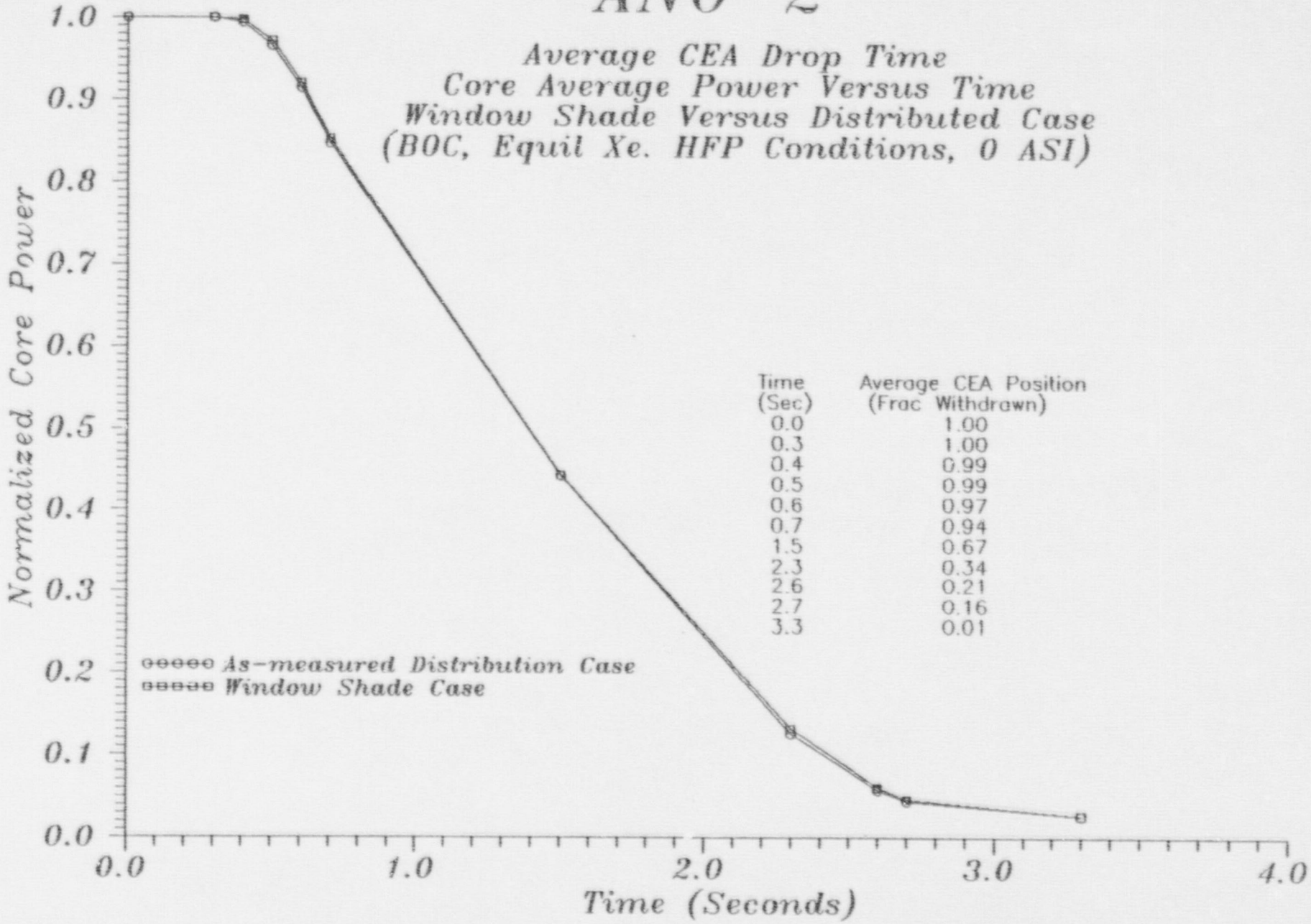

ANO-2
Average CEA Drop Time HERMITE Input
Window Shade Versus Distributed Case
o o o o Distributed Data
----- 'Window Shade' Average Position
Weight Group | Weight (lbs) | Case Input Time
1 | 232.6 | As-measured group average
2 | 225.5 | As-measured group average
3 | 219.6 | As-measured group average
4 | 216.5 | As-measured group average
5 | 213.6 | As-measured group average
6 | 206.6 | As-measured group average
(1% Inserted)
(25% Inserted)
(50% Inserted)
(75% Inserted)
(90% Inserted)
Time (Seconds)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0
10
20
30
40
50
60
70
80
CEA Number

FIGURE 6.2


ANO-2
Average CEA Drop Time HERMITE Input
Window Shade Versus Distributed Case
Expanded CEA Distribution
o o o o Distributed Data
------ 'Window Shade' Average Position
Weight Group
Weight (lbs)
Case Input Time
1 232.6 As-measured group minimum
2 225.6 As-measured group minimum
3 219.6 As-measured group average
4 216.6 As-measured group maximum
5 213.6 As-measured group maximum
6 206.6 As-measured group maximum
(1% Inserted)
(25% Inserted)
(50% Inserted)
(75% Inserted)
(90% Inserted)
Time (Seconds)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0
10
20
30
40
50
60
70
80
CEA Number

ANO-2

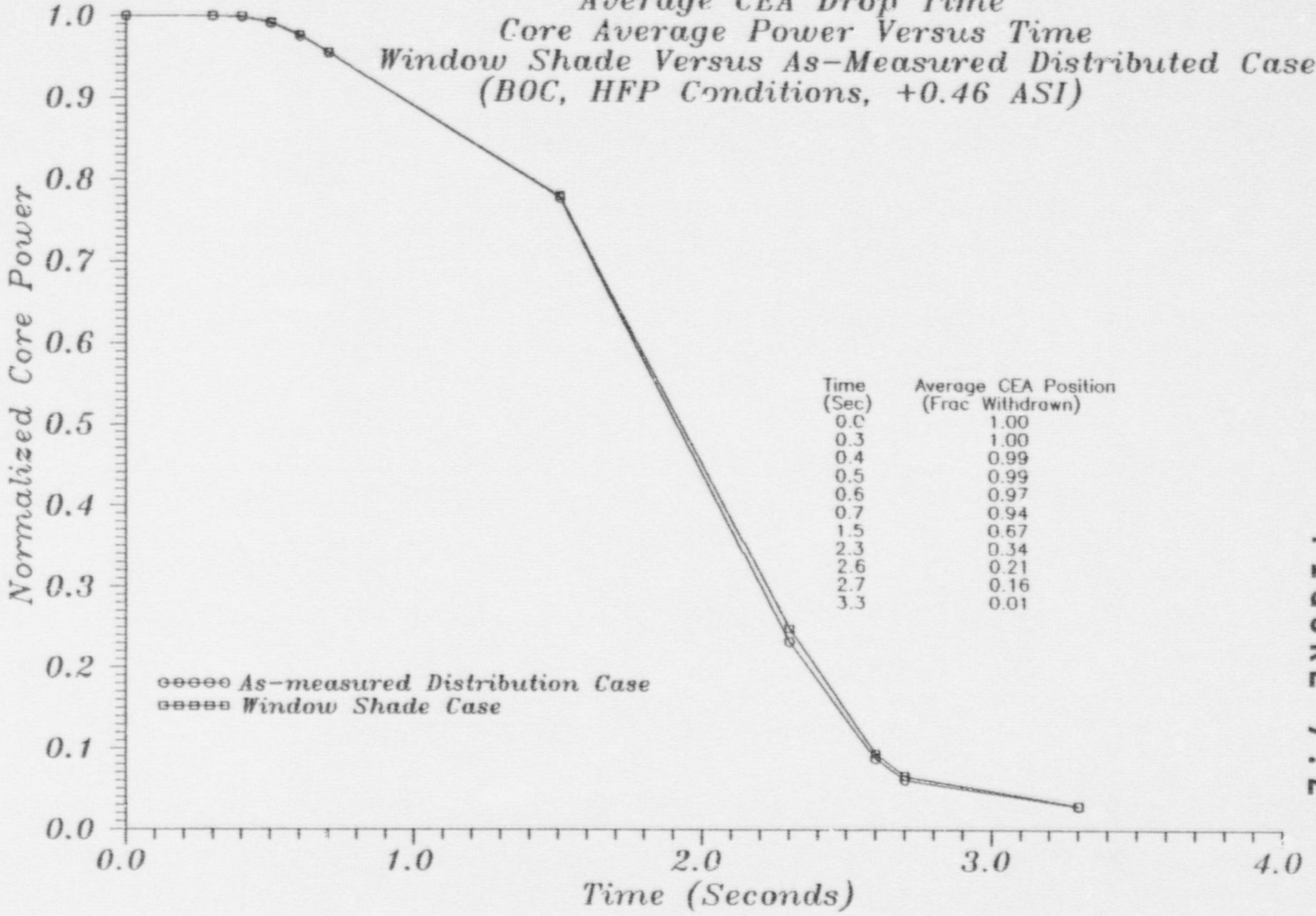


Time (Sec)	Average CEA Position (Frac Withdrawn)
0.0	1.00
0.3	1.00
0.4	0.99
0.5	0.99
0.6	0.97
0.7	0.94
1.5	0.67
2.3	0.34
2.6	0.21
2.7	0.16
3.3	0.01

FIGURE 7.1

ANO-2

Average CEA Drop Time
Core Average Power Versus Time
Window Shade Versus As-Measured Distributed Case
(BOC, HFP Conditions, +0.46 ASI)

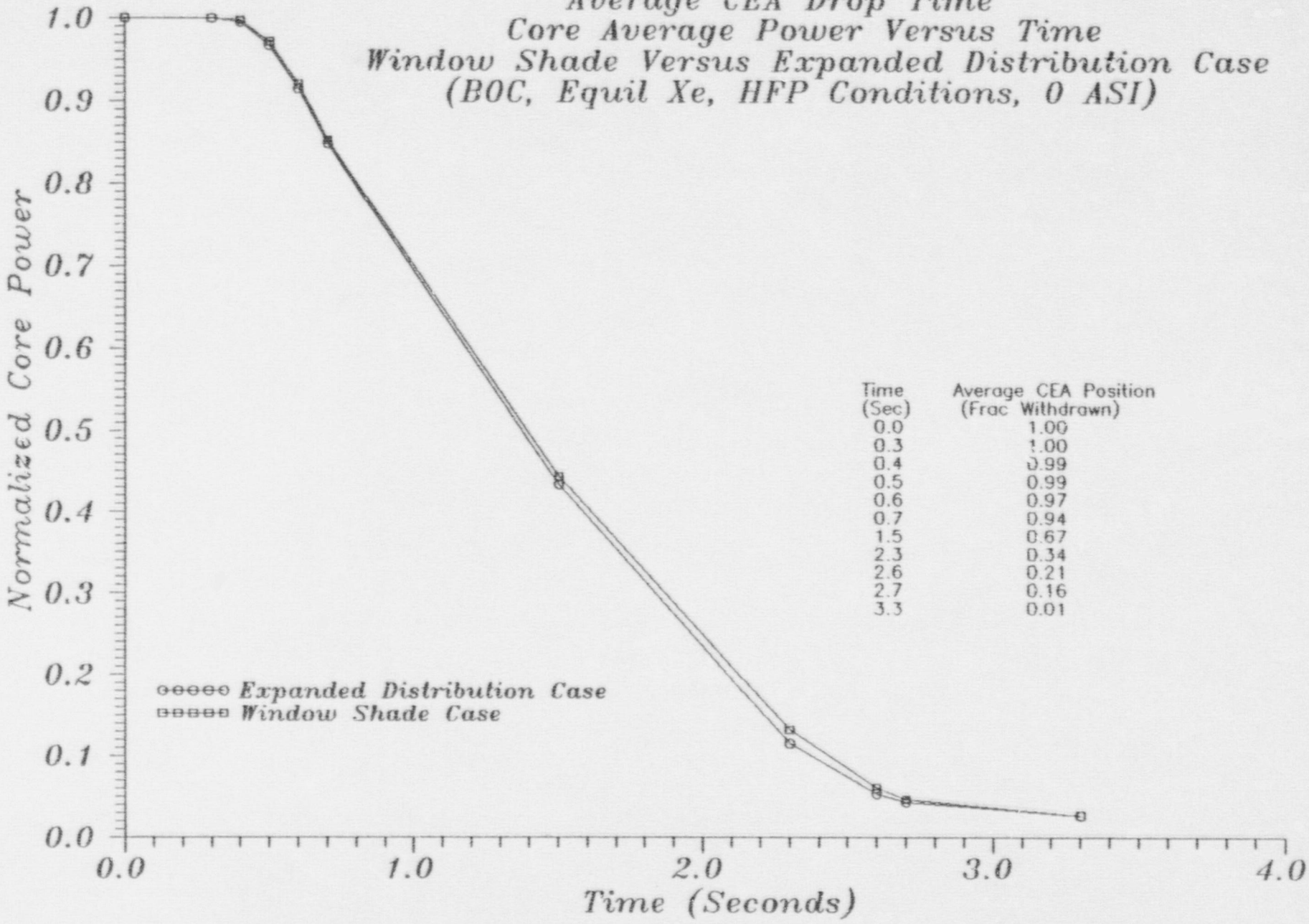


Time (Sec)	Average CEA Position (Frac Withdrawn)
0.0	1.00
0.3	1.00
0.4	0.99
0.5	0.99
0.6	0.97
0.7	0.94
1.5	0.67
2.3	0.34
2.6	0.21
2.7	0.16
3.3	0.01

FIGURE 7.2

ANO-2

Average CEA Drop Time
Core Average Power Versus Time
Window Shade Versus Expanded Distribution Case
(BOC, Equil Xe, HFP Conditions, 0 ASI)



Time (Sec)	Average CEA Position (Frac Withdrawn)
0.0	1.00
0.3	1.00
0.4	0.99
0.5	0.99
0.6	0.97
0.7	0.94
1.5	0.67
2.3	0.34
2.6	0.21
2.7	0.16
3.3	0.01

FIGURE 7.3

ANO-2

Basis For Average CEA Drop Time Technical Specification (3.1.3.4)

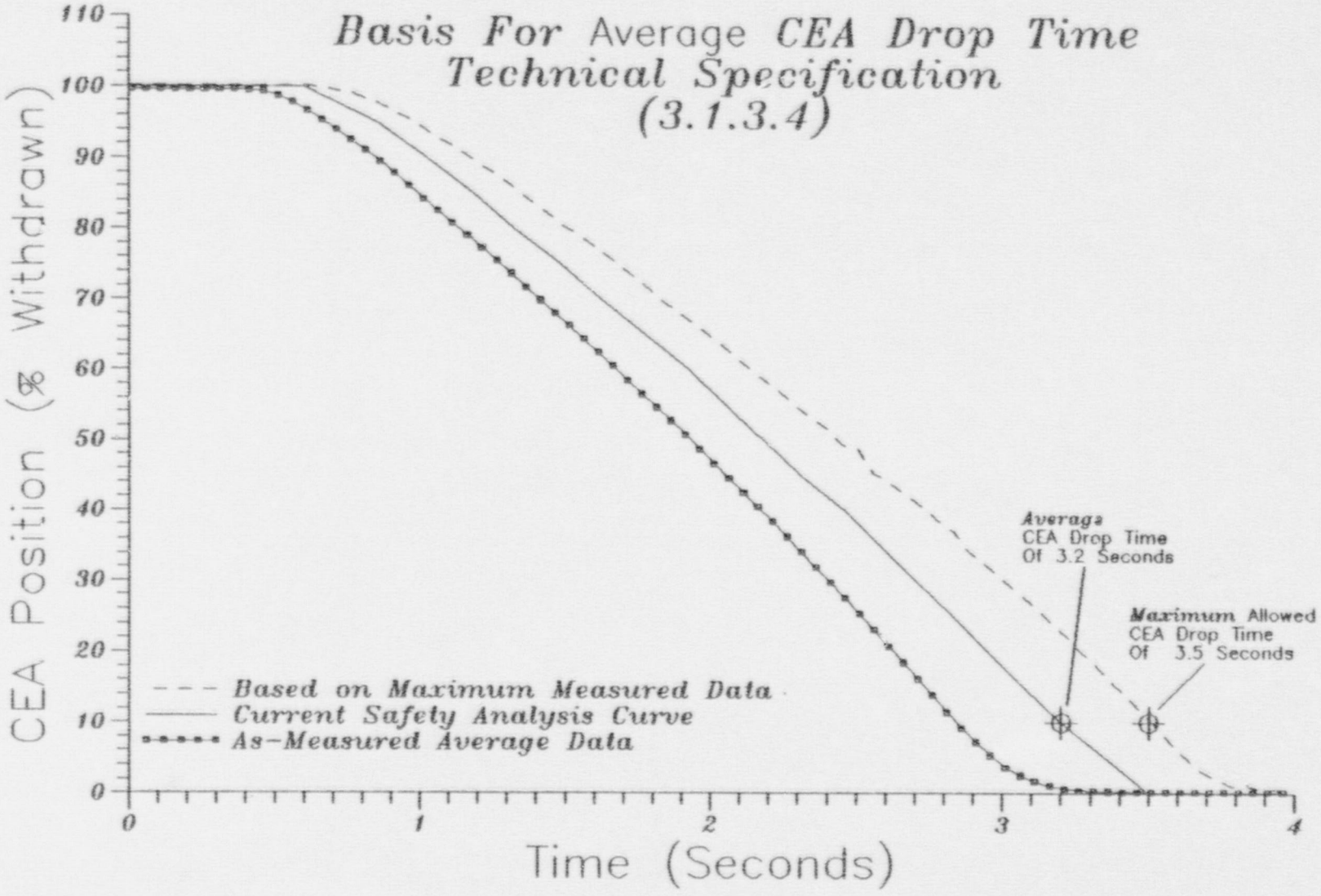


FIGURE 8.1

EXHIBIT 9.1

PROPOSED CHANGES TO ANO-2 TECHNICAL SPECIFICATIONS FOR AVERAGE CEA DROP TIME

REACTIVITY CONTROL SYSTEMS

CEA DROP TIME

LIMITING CONDITION FOR OPERATION

3.1.3.4 The individual full length (shutdown and control) CEA drop time, from a fully withdrawn position, shall be ≤ 3.~~25~~ seconds from when the electrical power is interrupted to the CEA drive mechanisms until the CEAs reach ~~its~~ their 90 percent insertion positions with:

a. T_{avg} ≥ 525°F, and

b. All reactor coolant pumps operating.

[and the arithmetic average of the CEA drop times of all full length CEA's, from a fully withdrawn position, shall be ≤ 3.2 seconds]

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With the CEA drop times ~~of any full length CEA~~ determined to exceed ~~either of~~ the above limits, restore the CEA drop times to within the above limits prior to proceeding to MODE 1 or 2.

b. With the CEA drop times within limits but determined at less than full reactor coolant flow, operation may proceed provided THERMAL POWER is restricted to less than or equal to the maximum THERMAL POWER level allowable for the reactor coolant pump combination operating at the time of CEA drop time determination.

SURVEILLANCE REQUIREMENTS

4.1.3.4 The CEA drop time of full length CEAs shall be demonstrated through measurement prior to reactor criticality:

a. For all CEAs following each removal of the reactor vessel head,

b. For specifically affected individuals CEAs following any maintenance on or modification to the CEA drive system which could affect the drop time of those specific CEAs, and

c. At least once per 18 months.

EXHIBIT 9.2

PROPOSED CHANGES TO ANO-2 TECHNICAL SPECIFICATIONS BASES FOR AVERAGE CEA DROP TIME

REACTIVITY CONTROL SYSTEMS

BASES

CEA positions and OPERABILITY of the CEA position indicators are required to be verified on a nominal basis of once per 12 hours with more frequent verifications required if an automatic monitoring channel is inoperable. These verification frequencies are adequate for assuring that the applicable LCO's are satisfied.

DELETE

~~The maximum CEA drop time restriction is consistent with the assumed CEA drop time used in the accident analysis. Measurement with $T_{avg} \geq 525°F$ and with all reactor coolant pumps operating ensures that the measured drop times will be representative of insertion times experienced during a reactor trip at operating conditions.~~

The establishment of LSSS and LCOs require that the expected long and short term behavior of the radial peaking factors be determined. The long term behavior relates to the variation of the steady state radial peaking factors with core burnup and is affected by the amount of CEA insertion assumed, the portion of a burnup cycle over which such insertion is assumed and the expected power level variation throughout the cycle. The short term behavior relates to transient perturbations to the steady-state radial peaks due to radial xenon redistribution. The magnitudes of such perturbations depend upon the expected use of the CEAs during anticipated power reductions and load maneuvering. Analyses are performed based on the expected mode of operation of the NSSS (base load, load following, etc.) and from these analyses CEA insertions are determined and a consistent set of radial peaking factors are defined. The Long Term Steady State and Short Term Insertion Limits are determined based upon the assumed mode of operation used in the analyses and provide a means of preserving the assumptions on CEA insertions used. The limits specified serve to limit the behavior of the radial peaking factors within the bounds determined from analysis. The actions specified serve to limit the extent of radial xenon redistribution effects to those accomodated in the analyses. The Long and Short Term Insertion Limits of Specifications 3.1.3.6 and 3.1.3.7 are specified for the plant which has been designed for primarily base loaded operation but which has the ability to accomodate a limited amount of load maneuvering.

The Transient Insertion Limits of Specification 3.1.3.6 and the Shutdown CEA Insertion Limits of Specification 3.1.3.5 ensure that 1) the minimum SHUTDOWN MARGIN is maintained, and 2) the potential effects of a CEA ejection accident are limited to acceptable levels. Long term operation at the Transient Insertion Limits is not permitted since such operation could have effects on the core power distribution which could invalidate assumptions used to determine the behavior of the radial peaking factors.

EXHIBIT 9.2 (CONTINUED)

PROPOSED CHANGES TO ANO-2 TECHNICAL SPECIFICATIONS BASES FOR AVERAGE CEA DROP TIME

REPLACEMENT

The average CEA drop time restriction is consistent with the assumed CEA drop time used in the accident analysis. The maximum CEA drop time restriction is used to limit the CEA drop time distribution about the average to that used in the accident analysis. Measurement with $T_{avg} \geq 525^{o}F$ and with all reactor coolant pumps operating ensures that the measured drop times will be representative of insertion times experienced during a reactor trip at operating conditions.

SAFETY ANALYSIS FLOW CHART
FUTURE AVERAGE CEA DROP TIME ANALYSIS

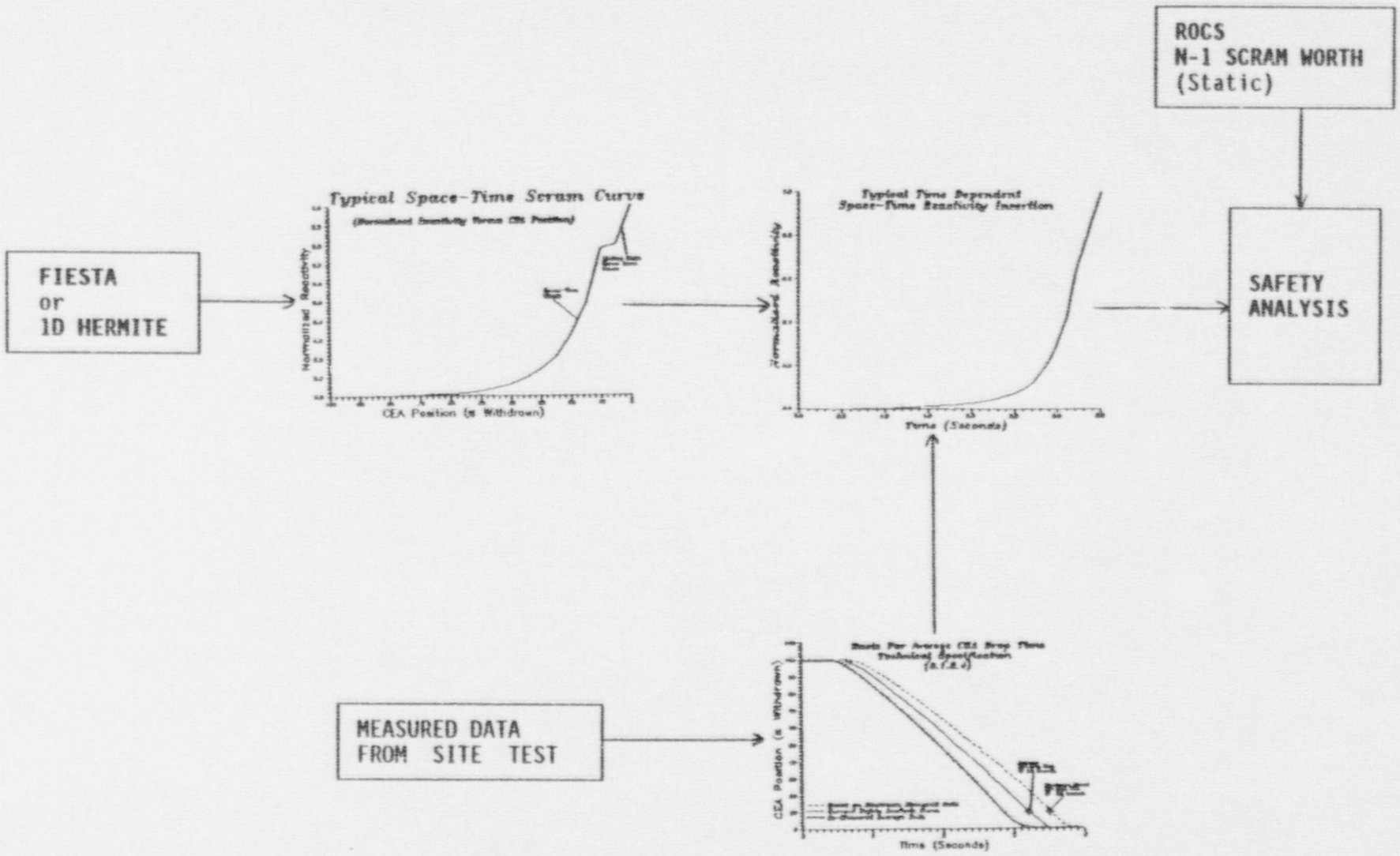


FIGURE 10.1

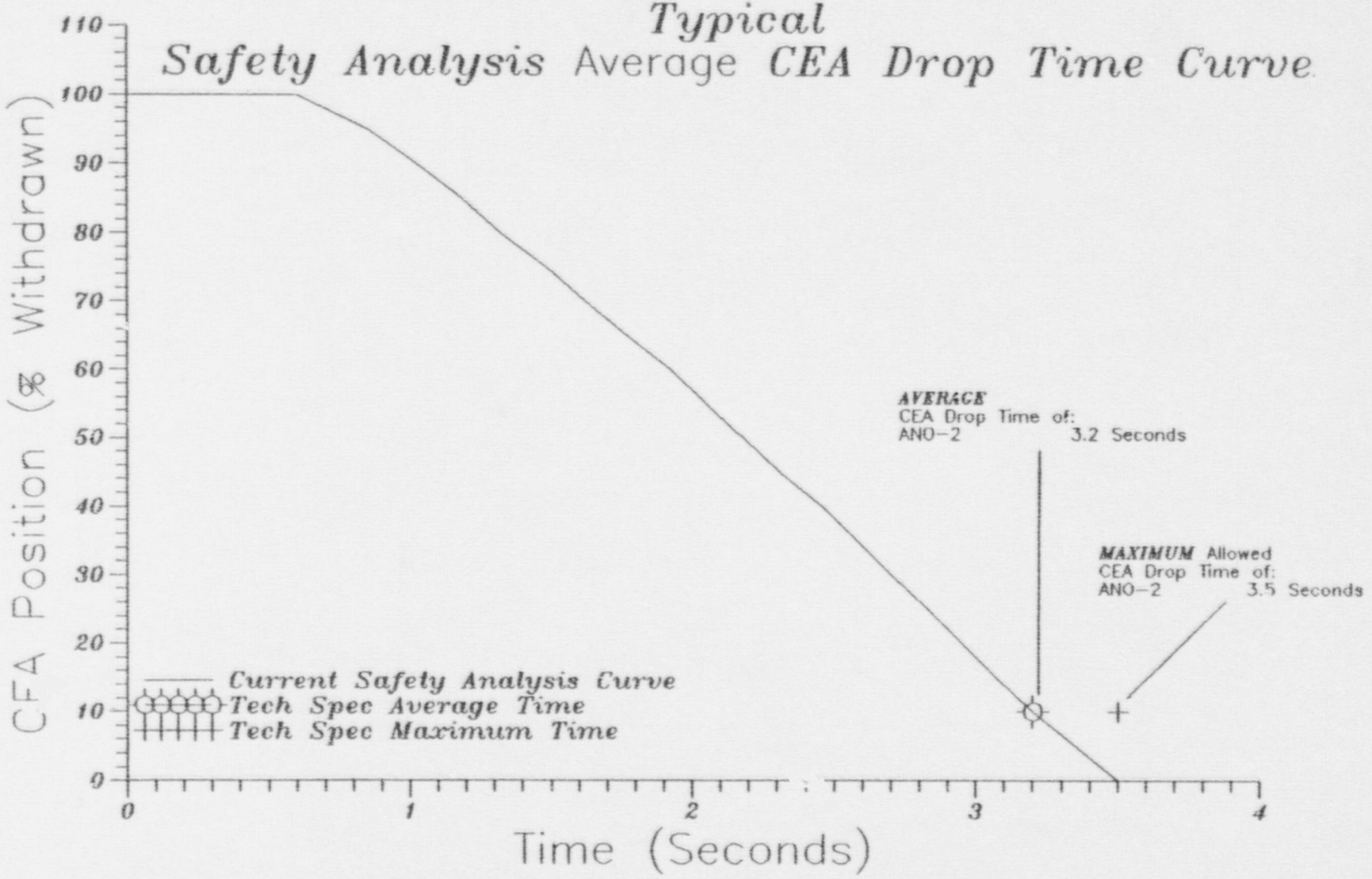

Typical
Safety Analysis Average CEA Drop Time Curve
CEA Position (% Withdrawn)
110
100
90
80
70
60
50
40
30
20
10
0
0
1
2
3
4
Time (Seconds)
AVERAGE
CEA Drop Time of:
ANO-2 3.2 Seconds
MAXIMUM Allowed
CEA Drop Time of:
ANO-2 3.5 Seconds
Current Safety Analysis Curve
Tech Spec Average Time
Tech Spec Maximum Time

FIGURE 10.2

APPENDIX A

ANO-2 Measured CEA Drop Time Test Data

May 18, 1988

ANO-2 CEA DROP TIME TEST DATA - MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >> raw	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	226.80
time/f ceaf >>> WWW	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	1.00
0.00	100.20	99.80	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.90	99.20	99.20	99.80	99.20	100.10	100.00	99.20	100.00	100.00
50.00	100.20	99.80	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.80	99.20	99.20	99.80	99.20	100.10	100.00	99.20	100.00	100.00
100.00	100.20	99.80	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.80	99.20	99.20	99.80	99.20	100.10	100.00	99.20	100.00	100.00
150.00	100.20	99.80	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.80	99.20	99.20	99.80	99.20	100.00	100.00	99.20	100.10	100.00
200.00	100.20	99.80	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.80	99.20	99.20	99.80	99.20	100.00	100.00	99.20	100.10	100.00
250.00	100.20	99.80	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.80	99.20	99.20	99.80	99.20	100.10	100.00	99.20	100.00	100.00
300.00	100.20	99.70	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.80	99.20	99.10	99.80	99.20	100.00	100.00	99.20	100.00	100.00
350.00	100.20	99.80	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.80	99.20	99.10	99.80	99.20	100.00	100.00	99.20	100.00	100.00
400.00	100.20	99.70	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.80	99.20	99.20	99.80	99.20	100.00	100.00	99.20	100.10	100.00
450.00	100.10	99.80	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.80	99.20	99.20	99.80	99.20	100.00	100.00	99.20	100.00	100.00
500.00	100.10	99.80	100.00	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.70	99.80	99.20	99.20	99.70	99.20	100.00	100.00	99.20	100.00	100.00
550.00	100.20	99.20	99.30	99.80	99.80	99.20	99.80	99.10	99.80	100.00	99.40	99.50	99.20	99.20	99.80	99.20	100.00	100.00	99.20	100.10	99.80
600.00	99.30	99.10	99.00	99.30	99.80	99.20	99.30	99.10	99.20	99.80	99.10	99.20	99.20	99.20	99.10	99.20	100.00	99.80	99.20	99.70	99.00
650.00	99.30	97.90	97.80	99.10	99.10	99.00	99.00	98.10	98.80	98.40	97.80	98.10	98.70	98.90	98.10	98.10	99.10	99.00	98.10	99.10	97.80
700.00	98.10	98.70	98.70	98.00	98.90	97.80	97.70	97.20	97.70	98.80	98.70	97.10	97.60	97.80	97.10	97.40	98.90	98.10	97.10	98.00	98.90
750.00	98.90	95.10	95.40	98.60	97.80	96.70	96.50	96.00	98.20	95.90	95.40	96.10	96.20	98.30	98.00	98.10	97.50	98.90	95.70	97.00	96.80
800.00	95.20	93.80	93.90	95.10	96.80	95.10	95.10	94.90	95.00	94.90	93.80	94.60	95.00	95.00	94.70	95.10	96.00	95.70	94.20	95.60	94.00
850.00	94.00	92.00	92.30	93.70	95.10	93.80	93.70	93.10	93.30	93.10	92.30	93.10	93.30	93.80	93.00	93.20	94.70	94.10	92.60	94.10	92.70
900.00	92.10	90.50	90.90	92.10	93.90	92.10	92.00	91.90	92.00	92.00	90.90	91.60	92.00	92.00	91.50	91.90	93.00	93.00	91.30	92.80	91.10
950.00	90.50	89.00	89.10	90.60	92.10	90.50	90.70	90.20	90.30	90.20	89.10	90.00	90.30	90.50	90.20	90.30	91.60	90.30	89.60	91.30	89.20
1000.00	88.90	87.20	87.30	89.00	90.70	89.00	88.90	88.40	88.50	88.80	87.30	88.30	88.50	89.20	88.20	88.50	89.90	89.60	88.00	89.50	87.60
1050.00	87.20	85.00	85.20	87.20	89.20	87.20	87.10	86.70	86.90	87.20	85.30	86.50	87.00	87.30	86.50	87.00	88.10	87.80	85.20	87.80	86.00
1100.00	85.10	83.10	83.30	85.10	87.30	85.20	85.10	84.90	84.90	85.10	83.50	84.50	85.10	85.30	84.80	85.00	86.40	86.00	84.20	86.20	83.90
1150.00	83.10	81.20	81.40	83.20	85.20	83.30	83.30	83.00	83.00	83.30	81.60	82.70	83.10	83.70	83.00	83.10	84.40	84.10	82.30	84.20	81.90
1200.00	81.10	79.30	79.50	81.30	83.40	81.60	81.40	81.10	81.10	81.80	79.80	80.90	81.20	82.00	81.10	81.20	82.60	82.20	80.50	82.40	80.00
1250.00	79.20	77.80	77.70	79.50	81.70	79.80	79.60	79.20	79.10	79.90	78.00	79.10	79.60	80.10	79.20	79.30	80.80	80.40	78.90	80.80	78.20
1300.00	77.30	75.90	75.80	77.80	79.80	78.20	77.90	77.60	77.30	78.20	78.10	77.30	77.90	78.30	77.60	77.60	79.10	78.80	77.10	79.10	78.20
1350.00	75.30	73.90	73.80	75.80	78.20	76.20	76.00	75.80	75.40	76.30	74.20	75.40	76.10	76.40	75.90	75.90	77.20	76.80	76.20	77.30	74.30
1400.00	73.30	71.90	71.70	74.10	76.20	74.30	74.10	74.00	73.40	74.60	72.00	73.40	74.20	74.70	74.10	74.10	75.30	74.90	73.30	75.50	72.20
1450.00	71.20	70.00	69.70	71.90	74.20	72.20	72.00	71.90	71.40	72.80	70.00	71.30	72.10	73.00	72.00	72.00	73.40	73.00	71.20	73.70	70.10
1500.00	69.20	68.00	67.80	70.00	72.10	70.20	70.10	70.00	69.40	70.80	68.00	69.30	70.10	71.00	70.00	70.10	71.40	70.90	69.20	71.80	68.20
1550.00	67.20	66.20	66.00	68.00	70.10	68.20	68.00	68.10	67.40	69.00	66.10	67.30	68.20	69.00	68.10	68.10	69.50	68.90	67.30	69.90	66.30
1600.00	65.40	64.20	64.00	66.20	68.10	66.30	66.20	66.30	65.60	67.00	64.10	65.60	66.30	67.10	66.30	66.30	67.60	67.00	65.50	68.10	64.40
1650.00	63.40	62.20	62.00	64.20	66.30	64.50	64.30	64.30	63.50	65.20	62.00	63.60	64.50	65.30	64.30	64.30	65.80	65.20	63.50	66.30	62.40
1700.00	61.40	60.20	60.20	62.20	64.30	62.50	62.30	62.40	61.40	63.20	59.60	61.60	62.70	63.30	62.30	62.40	63.80	63.10	61.60	64.40	60.30
1750.00	59.20	58.00	57.10	60.20	62.40	60.70	60.20	60.40	59.20	61.20	57.40	59.40	60.60	61.40	60.30	60.40	61.80	61.00	59.40	62.60	58.10
1800.00	57.20	56.90	55.80	57.90	60.30	58.50	58.00	58.20	57.20	59.00	55.30	57.40	58.70	59.30	58.10	58.30	59.70	58.80	57.40	60.60	56.00
1850.00	55.10	53.40	53.50	55.90	58.10	56.50	55.90	56.20	55.20	57.10	53.30	55.30	56.60	57.50	56.20	56.30	57.60	56.70	55.40	58.50	54.00
1900.00	53.30	52.20	51.60	53.80	56.10	54.40	53.80	54.10	53.30	55.00	51.00	53.50	54.60	55.70	54.10	54.30	55.60	54.80	53.50	56.50	52.20
1950.00	51.30	50.20	49.50	51.80	54.10	52.50	52.00	52.40	51.30	53.30	48.80	51.40	52.80	53.80	52.30	52.40	53.50	52.70	51.50	54.60	50.10
2000.00	49.30	48.20	47.40	49.70	52.30	50.50	49.80	50.40	49.20	51.20	46.30	49.40	50.70	52.10	50.20	50.40	51.80	50.60	49.50	53.00	48.20

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >>	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	225.60
raw time// ceal >>> VVVVV	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	1.00
2050.00	47.20	46.00	45.20	47.60	50.20	48.40	47.70	48.20	46.70	49.20	44.10	47.30	48.50	50.10	48.20	48.40	49.40	48.50	47.40	51.00	46.00
2100.00	44.90	43.80	43.00	45.30	48.10	46.20	45.30	46.00	44.40	47.20	41.80	45.00	46.20	48.20	45.90	46.20	47.30	46.10	45.20	49.10	43.80
2150.00	42.60	41.50	40.90	43.20	45.80	44.10	43.20	43.80	42.20	45.00	39.70	42.80	44.20	45.90	43.70	44.10	44.80	43.90	43.10	47.20	41.50
2200.00	40.50	39.50	38.90	41.00	43.50	42.10	41.00	41.50	40.30	43.00	37.30	40.70	42.10	43.80	41.40	42.10	42.70	41.70	41.00	45.00	39.40
2250.00	38.40	37.30	36.70	38.80	41.30	40.10	38.90	39.60	38.30	41.00	34.90	38.60	40.30	41.70	39.40	40.30	40.60	39.80	38.80	43.00	37.30
2300.00	36.30	35.30	34.40	36.60	39.40	37.80	36.70	37.50	36.60	39.00	32.30	36.50	38.00	39.70	37.30	38.00	38.30	37.60	36.70	41.00	35.20
2350.00	34.10	33.00	32.10	34.40	37.30	35.50	34.50	35.40	33.30	36.80	29.90	34.40	35.80	37.50	35.00	35.80	36.10	35.50	34.50	39.20	32.90
2400.00	31.80	30.60	29.80	32.00	35.20	33.20	32.10	33.00	31.10	34.60	27.70	31.90	33.20	35.30	32.40	33.20	33.60	33.00	32.30	37.20	30.50
2450.00	29.30	28.20	27.60	29.60	32.60	31.00	29.70	30.60	29.00	32.30	25.30	29.60	31.10	33.10	30.10	31.10	31.20	30.80	30.10	35.20	28.10
2500.00	27.30	26.30	25.40	27.50	30.30	28.60	27.60	28.30	26.70	30.20	22.70	27.50	28.70	30.90	28.00	28.90	28.80	28.50	27.90	32.90	26.00
2550.00	25.20	24.20	22.90	25.20	28.10	26.40	25.20	26.30	24.40	28.10	20.00	25.20	26.50	28.50	25.60	26.70	26.60	26.50	25.60	30.80	23.40
2600.00	22.80	21.70	20.40	22.60	26.00	24.30	22.90	23.80	22.10	26.20	17.40	22.80	24.30	26.40	23.30	24.40	24.30	24.20	23.40	28.80	21.00
2650.00	20.10	19.10	18.00	20.20	23.50	21.70	20.30	21.30	19.30	23.90	15.10	20.30	22.10	24.30	20.70	22.20	21.80	21.80	20.90	26.70	18.40
2700.00	18.00	17.00	15.80	17.70	21.10	19.20	17.80	18.80	17.10	21.30	12.50	18.10	19.30	22.00	18.20	19.70	19.20	19.30	18.50	24.80	16.10
2750.00	15.40	14.60	13.40	15.20	18.60	16.70	15.30	16.40	14.90	19.10	9.80	15.50	17.10	19.30	15.90	17.30	16.70	16.80	16.20	22.40	13.60
2800.00	13.20	12.40	10.90	12.90	16.20	14.40	13.00	14.10	12.40	16.80	7.00	13.50	14.70	17.10	13.40	15.10	14.40	14.50	14.00	20.10	11.30
2850.00	10.70	9.80	8.20	10.50	13.80	11.90	10.40	11.50	9.90	14.40	4.90	11.00	12.40	15.00	11.00	13.10	11.90	12.00	11.60	17.90	8.20
2900.00	8.10	7.10	5.80	7.80	11.30	9.40	7.80	8.80	7.20	12.30	2.50	8.30	9.80	12.40	8.20	10.60	9.30	9.40	9.20	15.50	6.00
2950.00	5.80	5.00	4.40	5.40	8.50	6.60	5.20	6.20	5.10	9.60	1.50	6.00	7.20	10.20	5.80	8.10	6.40	6.70	6.50	13.60	4.00
3000.00	4.00	3.10	1.80	3.40	6.10	4.30	3.30	4.20	3.10	7.10	0.10	4.10	5.10	7.30	3.70	5.90	4.10	4.40	4.40	11.40	2.30
3050.00	2.30	2.20	1.50	2.30	4.10	2.50	2.10	2.30	1.70	5.10	0.30	2.30	3.10	5.10	2.20	4.10	2.40	2.70	2.90	8.90	0.80
3100.00	1.20	0.70	0.20	1.10	2.30	1.40	0.70	1.30	0.30	3.10	0.20	1.30	2.00	3.10	1.00	2.30	1.30	1.50	1.50	6.30	0.20
3150.00	0.10	0.20	0.10	0.20	1.30	0.30	0.10	0.20	0.20	1.90	0.70	0.30	0.50	2.20	0.20	1.30	0.00	0.20	0.40	4.40	0.20
3200.00	0.10	0.20	0.80	0.20	0.20	0.30	0.40	0.20	0.20	0.60	0.50	0.20	0.30	0.60	0.00	0.20	0.10	0.20	0.30	2.80	0.20
3250.00	0.80	0.50	1.50	1.00	0.20	0.30	0.50	0.20	0.60	0.30	0.50	0.20	0.30	0.20	0.20	0.20	0.00	0.50	0.30	1.50	0.20
3300.00	1.10	0.50	1.10	1.20	0.20	0.60	0.80	0.50	0.60	0.20	0.10	0.60	0.60	0.20	0.20	0.20	0.00	1.30	0.60	0.30	0.20
3350.00	1.10	0.50	0.10	0.60	0.60	0.60	0.50	0.50	0.30	0.60	0.20	0.60	0.60	0.20	0.20	0.20	0.00	1.40	0.60	0.20	0.20
3400.00	0.10	0.20	0.20	0.20	0.60	0.30	0.20	0.20	0.20	0.60	0.20	0.20	0.30	0.50	0.20	0.20	0.00	0.50	0.30	0.20	0.20
3450.00	0.10	0.20	0.60	0.30	0.20	0.30	0.30	0.20	0.20	0.30	0.20	0.20	0.30	0.60	0.20	0.20	0.00	0.10	0.30	0.20	0.20
3500.00	0.50	0.20	0.60	0.60	0.20	0.30	0.30	0.20	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.30	0.30	0.20	0.20
3550.00	0.50	0.20	0.30	0.50	0.20	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.40	0.30	0.20	0.20
3600.00	0.20	0.20	0.20	0.50	0.20	0.30	0.30	0.20	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.50	0.30	0.20	0.20
3650.00	0.10	0.20	0.70	0.50	0.20	0.30	0.30	0.20	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.10	0.30	0.20	0.20
3700.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.30	0.30	0.20	0.20
3750.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.20	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
3800.00	0.50	0.20	0.60	0.50	0.20	0.30	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
3850.00	0.50	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
3900.00	0.50	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
3950.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4000.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4050.00	0.50	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20

ANO-2 CEA DROP TIME TEST DATA - MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >> raw time// ceaff >>> VVVVV	232.60 2.00	232.60 3.00	232.60 4.00	232.60 5.00	232.60 6.00	232.60 7.00	232.60 8.00	232.60 9.00	232.60 10.00	232.60 11.00	232.60 12.00	232.60 13.00	232.60 14.00	232.60 15.00	232.60 16.00	232.60 17.00	232.60 18.00	232.60 19.00	232.60 20.00	232.60 21.00	225.60 1.00
4100.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4150.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4200.00	0.50	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4250.00	0.50	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4300.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4350.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.30	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4400.00	0.50	0.20	0.50	0.50	0.20	0.30	0.20	0.10	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4450.00	0.50	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4500.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4550.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4600.00	0.50	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4650.00	0.50	0.20	0.50	0.50	0.20	0.30	0.20	0.10	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4700.00	0.40	0.20	0.50	0.50	0.20	0.30	0.30	0.10	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4750.00	0.40	0.20	0.50	0.50	0.20	0.30	0.20	0.10	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4800.00	0.40	0.20	0.50	0.50	0.20	0.30	0.20	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4850.00	0.40	0.20	0.50	0.50	0.20	0.30	0.20	0.10	0.20	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4900.00	0.40	0.20	0.50	0.50	0.20	0.30	0.20	0.10	0.20	0.20	0.20	0.20	0.30	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20
4950.00	0.40	0.20	0.50	0.50	0.20	0.30	0.20	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.20	0.30	0.20	0.20

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >>	225.60	225.60	225.60	225.60	225.60	225.60	225.60	225.80	219.80	219.80	219.30	219.80	219.8[illegible]	219.80	219.80	219.80	216.60	216.60	216.60	216.60	216.60
raw time/ cea# >>>	30.00	31.00	32.00	33.00	34.00	35.00	36.00	37.00	38.00	39.00	40.00	41.00	42.00	43.00	44.00	45.00	46.00	47.00	48.00	49.00	50.00
VVVVV																					
0.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.20	99.80	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.10	99.10	100.10
50.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.20	99.80	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.10	99.10	100.10
100.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.20	99.80	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.10	99.10	100.10
150.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.20	99.80	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.10	99.00	100.10
200.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.10	99.90	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.10	99.10	100.10
250.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.20	99.90	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.10	99.10	100.10
300.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.20	99.80	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.10	99.00	100.10
350.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.10	99.80	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.10	99.10	100.10
400.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.10	99.80	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.10	99.10	100.10
450.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.10	99.80	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.00	99.00	100.10
500.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.10	99.90	99.90	100.10	100.10	99.70	99.80	99.80	99.30	99.10	99.10	100.10
550.00	99.90	100.20	99.90	99.80	99.20	99.70	99.90	99.80	99.10	99.10	99.20	99.90	100.10	100.10	99.70	99.80	99.40	99.30	99.10	99.10	100.10
600.00	99.20	100.00	99.30	99.20	99.20	98.90	99.20	99.40	99.10	99.10	99.20	99.30	99.70	99.70	99.00	99.80	99.10	99.30	99.10	99.10	99.60
650.00	98.80	99.30	99.30	99.00	98.80	99.00	98.50	99.20	98.90	98.40	98.00	99.20	99.10	99.00	99.00	99.20	98.00	99.30	98.50	99.00	99.70
700.00	97.50	98.10	98.10	97.90	97.50	97.50	97.50	98.10	97.70	97.50	97.00	98.10	98.00	97.90	97.80	99.20	97.00	99.30	97.30	98.00	98.00
750.00	96.30	97.10	97.00	96.80	96.30	96.20	97.20	96.50	96.10	95.80	97.10	97.00	95.80	96.80	98.10	95.90	98.10	96.10	97.00	96.20	
800.00	95.10	96.00	95.20	95.10	95.00	94.90	95.10	96.10	95.00	95.00	94.10	95.90	95.80	95.40	95.20	97.10	94.30	97.10	94.80	95.90	95.60
850.00	93.70	94.30	94.10	94.00	93.50	93.50	93.40	94.70	93.80	93.40	92.90	94.20	94.30	93.90	93.90	96.00	93.00	95.90	93.20	94.50	94.10
900.00	92.10	93.10	92.20	92.20	92.00	91.90	92.10	93.10	92.10	92.00	91.30	92.90	92.70	92.30	92.40	94.50	91.40	94.20	91.90	93.00	92.80
950.00	90.60	91.40	91.30	91.20	90.60	90.50	90.50	91.60	90.80	90.40	89.80	91.30	91.40	90.90	91.10	93.10	90.10	93.10	90.20	91.70	91.30
1000.00	89.20	89.80	89.40	89.30	88.90	88.90	88.80	90.10	89.20	89.10	88.20	89.50	89.80	89.10	89.30	91.70	88.20	91.50	88.70	90.10	89.60
1050.00	87.40	88.30	87.80	88.00	87.30	87.10	87.30	88.30	87.[illegible]0	[illegible]90	86.30	88.10	88.10	87.50	87.90	90.20	86.90	90.20	87.00	88.40	88.20
1100.00	85.90	86.30	86.30	86.20	86.30	85.10	85.30	86.50	85.90	[illegible]	84.50	86.30	86.40	86.70	86.10	88.40	84.90	88.40	85.10	86.90	86.30
1150.00	84.10	84.30	84.10	84.20	83.60	83.40	83.50	84.60	84.00	8[illegible]0	83.30	84.20	84.50	83.70	84.10	86.90	83.20	86.80	83.50	85.00	84.40
1200.00	82.20	82.60	82.30	82.70	81.80	81.60	81.90	82.90	82.10	81.40	81.10	82.50	82.80	82.00	82.40	85.10	81.70	85.10	81.80	83.20	83.20
1250.00	80.80	80.90	80.80	81.10	80.10	79.80	80.20	81.10	80.50	80.00	79.30	80.90	81.00	80.10	80.80	83.20	80.00	83.30	80.00	81.50	80.20
1300.00	79.10	79.10	79.10	79.20	78.40	78.20	78.50	79.20	79.10	78.10	77.80	79.20	79.30	78.40	79.10	81.40	78.30	81.80	78.40	79.90	79.20
1350.00	77.30	77.30	77.30	77.70	76.50	76.30	76.70	77.40	77.20	76.10	76.10	77.30	77.70	76.60	77.20	79.90	76.60	80.10	76.70	78.20	77.40
1400.00	75.50	75.30	75.30	76.00	74.60	74.50	75.00	75.60	75.30	74.20	74.20	75.40	76.00	74.70	75.40	78.30	75.00	78.40	74.90	76.40	76.00
1450.00	73.80	73.30	73.40	74.20	73.00	72.30	73.30	73.60	73.60	72.10	72.10	73.40	74.10	72.60	73.60	76.30	73.10	76.60	73.10	74.80	74.80
1500.00	72.00	71.20	71.30	72.10	70.50	70.40	71.20	71.60	71.80	70.10	70.20	71.30	72.10	70.70	71.80	74.50	71.00	75.10	71.10	73.00	71.10
1550.00	70.00	69.20	69.50	70.10	68.40	68.50	69.20	69.80	70.00	68.10	68.60	69.40	70.20	68.80	69.90	72.50	69.30	73.30	69.30	71.00	70.10
1600.00	68.10	67.30	67.80	68.30	66.80	66.50	67.40	67.90	68.00	66.30	66.80	67.80	68.50	66.80	67.90	70.80	67.70	71.10	67.40	69.10	68.20
1650.00	66.30	64.90	65.80	66.50	64.90	64.80	65.80	66.20	66.30	64.40	65.20	66.10	66.80	65.10	66.20	69.00	66.10	69.20	66.90	67.30	66.30
1700.00	64.50	63.40	63.90	64.80	63.00	62.80	63.90	64.20	64.30	62.40	63.30	64.20	64.90	63.10	64.20	67.10	64.20	67.30	64.00	65.90	64.50
1750.00	62.50	61.30	61.90	63.00	61.00	60.80	62.10	62.10	62.50	60.40	61.30	62.30	63.00	61.10	62.30	65.30	62.20	65.90	62.10	64.10	62.50
1800.00	60.60	59.10	59.70	61.10	58.90	58.60	60.20	60.00	60.80	58.20	59.20	60.30	61.10	59.00	60.40	63.40	60.40	64.20	60.30	62.20	60.60
1850.00	58.40	57.10	57.60	59.00	56.80	56.70	58.10	57.70	58.60	56.20	57.20	58.10	59.00	57.00	58.30	61.60	58.20	62.30	58.30	60.40	58.70
1900.00	56.50	55.10	55.50	57.00	54.80	54.60	56.10	55.70	56.80	54.10	55.40	56.20	56.90	54.90	56.40	59.60	56.50	60.30	56.40	58.40	56.60
1950.00	54.50	53.30	53.50	55.00	52.90	52.70	54.10	53.60	54.90	52.30	53.60	54.20	55.00	53.10	54.40	57.80	54.70	58.20	54.50	56.70	54.50
2000.00	52.90	51.20	51.40	53.30	50.90	51.30	52.40	51.70	53.10	50.30	52.00	52.40	53.20	51.00	52.80	56.00	53.10	56.30	52.80	54.80	52.70

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >>	225.60	225.60	225.60	225.60	225.60	225.60	225.60	225.60	219.60	219.60	219.60	219.60	219.60	219.60	219.60	219.60	216.60	216.60	216.60	216.60	216.60
raw time// cea# >>>	30.00	31.00	32.00	33.00	34.00	35.00	36.00	37.00	38.00	39.00	40.00	41.00	42.00	43.00	44.00	45.00	46.00	47.00	48.00	49.90	50.00
VVVVV																					
2050.00	50.90	49.00	49.40	51.30	48.90	47.70	50.40	49.60	51.20	48.20	50.10	50.40	51.20	48.90	50.90	54.10	51.10	54.50	51.00	53.10	50.70
2100.00	49.00	46.50	47.30	49.30	46.60	46.60	48.40	47.50	49.20	46.00	48.20	48.40	49.20	46.70	48.90	52.30	49.20	53.00	49.10	51.20	48.70
2150.00	46.70	44.30	45.10	47.30	44.40	44.00	46.20	45.10	47.20	44.00	46.10	46.20	47.20	44.50	46.70	50.30	47.20	51.20	46.90	49.20	46.60
2200.00	44.60	42.20	42.90	45.10	42.20	42.00	44.20	43.00	45.00	41.80	44.10	44.20	44.90	42.40	44.60	48.30	45.00	49.30	45.00	47.30	44.40
2250.00	42.60	40.30	40.70	43.10	40.30	40.00	42.10	40.70	43.10	39.90	42.10	42.10	42.90	40.40	42.60	46.20	43.10	47.30	43.00	45.10	42.30
2300.00	40.70	38.20	38.40	41.10	38.20	37.70	40.20	38.70	41.00	37.80	40.30	40.30	40.80	38.2[illegible]	[illegible].70	44.20	41.30	45.20	41.10	43.20	40.40
2350.00	38.80	36.00	36.40	39.30	35.90	35.40	38.10	36.60	39.20	35.40	38.20	38.30	38.90	3[illegible]	[illegible].40	42.20	39.60	43.20	39.20	41.30	38.30
2400.00	36.70	33.40	34.10	37.30	33.50	33.00	36.10	34.40	37.20	33.20	36.10	36.20	36.80	33.[illegible]	[illegible].40	40.40	37.70	41.20	37.30	39.50	36.40
2450.00	34.50	31.20	31.60	35.30	31.20	30.70	33.70	31.80	35.20	31.10	33.80	33.90	34.70	31.[illegible]	[illegible].10	38.40	36.10	39.40	35.20	37.50	34.10
2500.00	32.20	29.00	29.20	33.00	28.80	28.30	31.50	29.50	33.00	28.90	31.70	31.50	32.30	28.80	32.00	36.40	33.40	37.40	32.90	35.40	32.10
2550.00	30.20	26.60	27.30	30.80	26.70	26.10	29.30	27.50	31.00	26.60	29.40	29.30	30.10	26.70	29.90	34.10	31.20	35.30	30.80	33.20	29.80
2600.00	28.10	24.40	24.70	28.50	24.40	23.70	27.40	25.20	28.80	24.30	27.40	27.40	27.90	24.30	27.90	32.10	29.10	32.90	28.70	31.20	27.80
2650.00	25.70	22.00	22.40	26.40	21.90	21.00	25.20	22.70	26.80	22.10	25.30	25.30	25.70	21.90	25.60	30.00	27.20	30.70	26.70	29.10	25.60
2700.00	23.50	19.30	20.00	24.30	19.30	18.50	22.80	20.30	24.40	19.40	23.30	23.30	23.40	19.40	23.30	27.90	25.10	28.50	24.50	27.30	24.20
2750.00	21.20	17.00	17.30	22.20	16.90	16.00	20.40	17.80	22.20	17.10	20.80	20.90	20.90	16.90	21.00	25.60	23.10	26.50	22.30	25.20	20.50
2800.00	19.00	14.50	15.10	19.70	14.70	13.70	18.20	15.40	20.00	14.80	18.40	18.60	18.50	14.70	18.90	23.40	20.80	24.40	19.90	23.00	19.10
2850.00	16.40	12.20	12.80	17.30	12.20	11.10	15.80	13.20	17.70	12.30	16.10	16.30	16.10	12.20	16.50	21.10	18.40	22.30	17.70	20.50	16.80
2900.00	14.40	9.50	10.40	15.10	9.80	8.30	13.60	10.60	15.80	10.20	14.30	14.30	14.00	9.70	14.50	18.80	16.[illegible]	19.90	15.40	18.20	14.60
2950.00	12.00	6.90	7.40	12.90	6.90	5.80	11.40	8.00	12.6[illegible]	6.80	11.80	12.10	11.50	7.00	12.20	16.40	15.10	17.50	13.30	16.10	12.40
3000.00	9.50	4.70	5.20	10.40	4.60	3.80	8.90	5.50	11.10	5.00	9.40	9.70	9.00	4.70	10.00	14.40	11.60	15.30	11.10	14.20	10.30
3050.00	7.10	3.90	3.20	8.10	3.00	2.30	6.30	3.50	8.30	3.10	7.10	7.20	6.40	3.10	7.20	12.00	9.70	13.40	8.80	11.80	7.40
3100.00	5.00	1.40	2.30	5.70	1.80	1.10	4.20	2.30	6.10	2.20	5.00	5.10	4.30	2.10	5.00	9.50	7.00	11.00	6.20	9.40	5.20
3150.00	3.10	0.30	0.90	4.00	0.50	0.00	2.70	1.00	4.10	0.80	3.10	3.30	2.80	0.90	3.40	7.00	5.00	8.40	4.30	7.00	3.40
3200.00	2.10	0.30	0.30	2.30	0.30	0.30	1.50	0.30	2.90	0.20	2.20	2.30	1.70	0.30	2.10	4.80	3.20	6.20	2.80	5.00	2.30
3250.00	0.70	0.30	0.30	1.30	0.50	0.30	0.30	0.20	1.50	0.10	0.80	1.30	0.50	0.50	1.00	3.00	2.10	4.20	1.70	3.20	1.30
3300.00	0.20	0.60	0.60	0.20	0.70	1.30	0.20	0.50	0.30	0.20	0.30	0.30	0.20	0.50	0.00	2.10	1.10	2.90	0.6[illegible]	2.10	0.20
3350.00	0.30	0.60	0.60	0.20	0.90	1.00	0.20	0.60	0.10	0.50	0.20	0.30	0.40	0.40	0.00	0.70	0.10	1.80	0.10	1.10	0.30
3400.00	0.50	0.30	0.60	0.20	0.50	0.00	0.60	0.40	0.10	0.20	0.20	0.20	0.80	0.40	0.00	0.10	0.10	0.40	0.30	0.10	0.20
3450.00	0.60	0.30	0.30	0.60	0.30	0.20	0.60	0.20	0.10	0.20	0.60	0.20	0.60	0.40	0.30	0.[illegible]	0.30	0.30	[illegible].20	0.00	0.20
3500.00	0.30	0.20	0.30	0.60	0.40	0.10	0.30	0.20	0.10	0.20	0.40	0.30	0.50	0.40	0.30	0.40	0.40	0.30	0.30	0.10	0.20
3550.00	0.20	0.30	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.20	0.20	0.30	0.20	0.40	0.[illegible]	0.50	0.40	0.60	0.20	0.30	0.30
3600.00	0.20	0.20	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.20	0.20	0.30	0.30	0.40	0.00	0.20	0.10	0.70	0.20	0.10	0.20
3650.00	0.20	0.20	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.10	0.20	0.30	0.30	0.40	0.00	0.10	0.00	0.30	0.20	0.00	0.20
3700.00	0.30	0.20	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.20	0.20	0.20	0.30	0.40	0.00	0.10	0.00	0.30	0.20	0.10	0.20
3750.00	0.30	0.30	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.20	0.20	0.30	0.30	0.40	0.00	0.10	0.10	0.30	0.20	0.00	0.20
3800.00	0.20	0.20	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.20	0.20	0.20	0.30	0.40	0.00	0.10	0.00	0.30	0.20	0.10	0.20
3850.00	0.20	0.20	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.20	0.20	0.20	0.30	0.40	0.00	0.10	0.00	0.30	0.20	0.10	0.20
3900.00	0.20	0.20	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.10	0.20	0.30	0.30	0.40	0.00	0.10	0.10	0.30	0.20	0.10	0.20
3950.00	0.20	0.20	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.20	0.20	0.20	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4000.00	0.30	0.20	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.10	0.20	0.30	0.30	0.40	0.00	0.10	0.10	0.30	0.20	0.10	0.20
4050.00	0.20	0.20	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.10	0.20	0.30	0.30	0.40	0.00	0.10	0.10	0.30	0.20	0.10	0.20

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >>	225.60	225.60	225.60	225.60	225.60	225.60	225.60	225.60	219.60	219.60	219.60	219.60	219.60	219.60	219.60	219.60	216.60	216.60	216.60	216.60	216.60
raw time// cnt >>>	30.00	31.00	32.00	33.00	34.00	35.00	36.00	37.00	38.00	39.00	40.00	41.00	42.00	43.00	44.00	45.00	46.00	47.00	48.00	49.00	50.00
VVVVV																					
4100.00	0.20	0.30	0.30	0.20	0.40	0.20	0.20	0.20	0.10	0.10	0.20	0.30	0.30	0.30	0.00	0.10	0.10	0.30	0.20	0.10	0.20
4150.00	0.30	0.30	0.30	0.20	0.40	0.20	0.20	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.10	0.20
4200.00	0.30	0.20	0.30	0.20	0.40	0.10	0.20	0.20	0.10	0.20	0.20	0.20	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4250.00	0.30	0.20	0.30	0.20	0.40	0.20	0.20	0.10	0.10	0.10	0.20	0.30	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4300.00	0.20	0.20	0.30	0.20	0.30	0.20	0.20	0.10	0.10	0.10	0.20	0.30	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.10	0.20
4350.00	0.20	0.30	0.30	0.20	0.40	0.20	0.20	0.10	0.10	0.20	0.20	0.30	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4400.00	0.20	0.20	0.30	0.20	0.30	0.10	0.20	0.10	0.10	0.10	0.20	0.30	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4450.00	0.30	0.20	0.30	0.20	0.30	0.20	0.20	0.10	0.10	0.20	0.20	0.30	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4500.00	0.20	0.30	0.30	0.20	0.30	0.20	0.20	0.10	0.10	0.10	0.20	0.20	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.10	0.20
4550.00	0.20	0.30	0.30	0.20	0.30	0.20	0.20	0.10	0.10	0.10	0.20	0.30	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4600.00	0.20	0.20	0.30	0.20	0.30	0.10	0.20	0.10	0.10	0.10	0.20	0.20	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4650.00	0.20	0.30	0.30	0.20	0.30	0.20	0.20	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4700.00	0.20	0.20	0.30	0.20	0.30	0.20	0.20	0.10	0.10	0.20	0.20	0.30	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4750.00	0.30	0.20	0.30	0.20	0.30	0.20	0.20	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4800.00	0.20	0.20	0.30	0.20	0.30	0.20	0.20	0.10	0.10	0.10	0.20	0.20	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4850.00	0.30	0.20	0.30	0.20	0.30	0.20	0.20	0.10	0.10	0.10	0.20	0.20	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4900.00	0.20	0.20	0.30	0.20	0.30	0.10	0.20	0.10	0.10	0.20	0.20	0.20	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20
4950.00	0.20	0.20	0.30	0.20	0.30	0.20	0.20	0.10	0.10	0.10	0.20	0.30	0.30	0.30	0.00	0.10	0.00	0.30	0.20	0.00	0.20

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >>	216.80	216.80	216.80	216.80	216.80	216.80	216.80	213.80	213.80	213.80	213.80	213.80	213.80	213.80	213.80	213.80	213.80	213.80	206.80	206.80
raw timeli ceall >>> VVVVV	51.00	52.00	53.00	54.00	55.00	56.00	57.00	58.00	59.00	60.00	61.00	62.00	63.00	64.00	65.00	66.00	67.00	68.00	69.00	70.00	71.00
0.00	99.20	99.20	99.30	99.20	99.20	99.10	99.40	99.10	99.10	99.20	99.80	100.00	99.20	100.10	99.20	99.10	100.00	99.10	99.20	99.90	99.20
50.00	99.20	99.20	99.30	99.10	99.10	99.10	99.30	99.10	99.10	99.10	99.80	100.00	99.20	100.20	99.20	99.10	100.00	99.20	99.20	99.90	99.20
100.00	99.20	99.20	99.30	99.20	99.10	99.10	99.30	99.10	99.10	99.20	99.80	100.00	99.20	100.10	99.20	99.10	100.00	99.20	99.20	99.90	99.20
150.00	99.20	99.20	99.30	99.20	99.20	99.10	99.30	99.10	99.10	99.20	99.80	100.00	99.20	100.10	99.20	99.10	100.00	99.20	99.20	99.90	99.20
200.00	99.20	99.20	99.30	99.20	99.10	99.10	99.30	99.10	99.10	99.20	99.80	100.00	99.20	100.10	99.20	99.10	100.00	99.20	99.20	99.90	99.20
250.00	99.20	99.20	99.30	99.20	99.10	99.10	99.30	99.10	99.10	99.20	99.80	100.00	99.20	100.10	99.20	99.10	100.00	99.20	99.20	99.90	99.20
300.00	99.20	99.20	99.30	99.20	99.20	99.10	99.30	99.10	99.10	99.20	99.80	100.00	99.20	100.10	99.20	99.10	100.00	99.20	99.20	99.90	99.20
350.00	99.20	99.20	99.30	99.20	99.10	99.10	99.30	99.00	99.10	99.20	99.70	100.00	99.20	100.10	99.20	99.10	100.00	99.20	99.20	99.80	99.20
400.00	99.20	99.20	99.20	99.20	99.10	99.10	99.30	99.10	99.10	99.20	99.80	100.00	99.10	100.10	99.20	99.10	100.00	99.20	99.20	99.90	99.20
450.00	99.20	99.20	99.30	99.20	99.20	99.10	99.30	99.10	99.10	99.20	99.80	100.00	99.20	100.10	99.20	99.10	100.00	99.20	99.20	99.90	99.20
500.00	99.20	99.20	99.30	99.20	99.20	99.20	99.30	99.10	99.10	99.10	99.80	100.00	99.20	100.10	99.20	99.10	100.00	99.20	99.20	99.90	99.20
550.00	99.20	99.20	99.30	99.20	99.20	99.10	99.30	99.10	99.10	99.20	99.80	99.10	99.20	100.10	99.20	99.10	100.00	99.20	99.20	99.90	99.20
600.00	99.20	99.20	99.20	99.20	99.10	99.10	99.30	99.10	99.10	99.20	99.80	99.10	99.20	100.10	99.20	99.10	100.00	99.20	99.20	99.80	99.20
650.00	98.10	98.80	98.80	98.40	98.80	98.90	99.30	98.80	99.10	98.50	99.60	97.90	99.20	99.40	98.50	98.50	99.90	98.00	99.20	99.20	99.20
700.00	97.10	97.80	97.80	97.30	97.50	98.00	98.40	97.80	98.40	97.40	99.20	96.80	98.10	99.20	97.80	97.50	98.80	97.10	99.10	98.70	98.00
750.00	96.10	96.40	96.40	96.10	96.20	96.80	97.20	96.60	97.30	96.10	98.00	95.10	97.10	98.00	96.20	96.30	97.30	96.10	98.10	97.80	97.00
800.00	95.00	95.10	95.10	94.80	95.30	95.40	96.20	95.10	96.10	94.90	97.10	94.00	96.10	96.60	95.10	95.00	96.10	94.90	97.10	96.30	96.00
850.00	93.10	94.10	94.10	93.30	93.50	94.10	94.60	93.90	95.00	93.30	95.90	92.10	94.80	95.20	93.90	93.60	94.80	93.20	95.80	96.10	94.80
900.00	92.00	92.20	92.20	91.90	92.10	92.60	93.20	92.10	93.70	91.90	94.30	91.10	93.10	94.00	92.10	92.10	93.40	92.00	94.20	94.00	93.10
950.00	90.40	91.30	91.20	90.50	90.70	91.30	91.90	91.00	92.00	90.40	92.90	89.20	91.90	92.20	90.70	90.80	91.90	90.40	93.00	92.20	91.90
1000.00	89.00	89.30	89.30	88.90	89.10	89.50	90.50	89.20	90.60	88.70	91.40	87.80	90.30	91.00	89.20	89.30	90.60	88.90	91.50	91.20	90.30
1050.00	87.30	88.10	88.00	87.20	87.50	88.20	88.70	87.60	89.20	87.00	90.00	86.10	88.60	89.30	87.40	87.70	89.00	87.30	90.10	89.40	89.00
1100.00	85.20	86.20	86.30	85.60	85.80	86.30	87.30	86.10	87.40	85.10	88.30	84.00	87.30	87.60	86.00	86.10	87.40	85.30	88.40	88.10	87.30
1150.00	83.60	84.30	84.30	83.80	84.00	84.60	85.30	84.10	86.00	83.30	86.50	82.20	85.10	86.10	84.10	84.20	85.80	83.60	86.70	86.30	85.60
1200.00	82.10	82.90	83.00	82.10	82.30	83.00	83.80	82.40	84.00	81.50	84.90	80.80	83.40	84.10	82.10	82.50	84.00	82.10	85.00	84.50	84.10
1250.00	80.10	81.10	81.10	80.40	80.50	81.20	82.10	80.90	82.20	79.70	83.10	79.10	81.90	82.40	80.30	80.80	82.40	80.20	83.20	83.00	82.10
1300.00	78.50	79.30	79.40	78.90	78.90	79.40	80.40	79.10	80.60	78.10	81.20	77.10	80.10	80.90	79.00	79.10	80.70	78.80	81.30	81.20	80.60
1350.00	77.00	77.90	78.10	77.10	77.20	77.90	78.70	77.30	79.10	76.20	79.50	75.30	78.30	79.10	77.20	77.50	79.10	77.10	79.60	79.80	79.10
1400.00	75.20	76.20	76.30	75.30	75.30	76.10	77.20	75.90	77.20	74.30	78.10	73.50	76.40	77.40	75.30	75.70	77.30	76.30	78.10	78.20	77.30
1450.00	73.30	74.30	74.40	73.60	73.50	74.30	75.50	74.10	75.40	72.30	76.40	71.80	74.70	75.30	73.40	74.00	75.70	73.40	76.30	76.30	75.80
1500.00	71.20	72.20	72.90	71.80	71.50	72.20	73.60	72.00	73.80	70.40	74.50	69.90	73.00	74.00	71.80	72.00	73.80	71.40	74.40	74.60	74.20
1550.00	69.40	70.40	71.10	69.60	69.70	70.30	71.80	70.10	71.80	68.50	72.80	67.90	71.00	72.10	69.90	70.20	71.80	69.50	72.30	73.00	72.10
1600.00	67.70	68.90	69.10	67.90	67.80	68.40	70.10	68.40	70.00	66.60	70.90	66.10	69.00	70.10	68.10	68.40	70.00	68.10	70.50	71.00	70.70
1650.00	66.10	67.10	67.40	66.30	66.10	66.70	68.30	66.70	68.00	65.00	69.10	64.20	67.00	68.20	66.30	66.50	68.30	66.30	68.60	69.10	69.00
1700.00	64.20	65.30	66.00	64.40	64.20	65.10	66.40	65.20	66.30	63.10	67.10	62.20	65.30	66.50	64.40	64.90	66.40	64.40	66.80	67.20	67.10
1750.00	62.30	63.40	64.20	62.50	62.30	63.10	64.90	63.20	64.40	61.10	65.50	60.20	63.40	65.00	62.60	63.10	64.80	62.50	65.10	65.70	65.60
1800.00	60.30	61.40	62.30	60.70	60.40	61.20	63.10	61.30	62.70	59.00	63.80	58.10	61.70	63.00	60.90	61.20	63.00	60.60	63.20	64.00	64.00
1850.00	58.10	59.30	60.40	58.60	58.20	59.00	61.30	59.10	60.90	57.20	62.00	56.10	59.60	61.10	58.90	59.10	61.10	58.60	61.20	62.20	62.20
1900.00	56.10	57.40	58.20	56.70	56.20	57.00	59.30	57.10	58.80	55.20	60.20	54.10	57.70	59.00	57.00	57.10	59.00	56.90	59.00	60.20	60.30
1950.00	54.10	55.60	56.40	54.90	54.20	55.00	57.30	55.10	57.00	53.40	58.10	52.30	55.80	57.00	55.00	55.30	57.10	55.10	57.00	58.10	58.30
2000.00	52.30	53.70	54.60	53.20	52.40	53.10	55.30	53.40	55.00	51.50	56.20	50.30	53.70	54.90	53.30	53.60	55.40	53.30	55.00	56.20	56.70

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >> raw time/ ceal >>> VVVVV	216.60	216.60	216.60	216.60	216.60	216.60	216.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	208.60	208.60
	51.00	52.00	53.00	54.00	56.00	56.00	57.00	58.00	59.00	60.00	61.00	62.00	63.00	64.00	65.00	66.00	67.00	68.00	69.00	70.00	71.00
2050.00	50.30	52.00	53.10	51.30	50.30	51.10	53.50	51.40	53.30	49.50	54.20	48.30	51.90	53.10	51.40	51.60	53.50	51.40	53.10	54.30	55.00
2100.00	48.20	50.90	51.20	49.40	48.30	49.20	51.70	49.60	51.30	47.50	52.40	46.00	49.90	51.10	49.40	49.70	51.70	49.40	51.00	52.80	53.30
2150.00	46.00	48.10	49.30	47.40	46.50	46.90	49.80	47.60	49.30	45.30	50.50	43.90	47.90	48.80	47.60	47.60	49.70	47.40	49.00	50.90	51.30
2200.00	44.00	45.90	47.30	45.40	44.00	44.80	47.90	45.30	47.40	43.40	48.70	41.90	45.50	46.50	45.40	45.40	47.80	45.40	46.60	49.10	49.40
2250.00	41.70	43.90	45.10	43.40	41.80	42.70	45.70	43.30	45.20	41.30	46.60	40.10	43.30	44.30	43.50	43.40	45.70	43.40	44.50	47.30	47.60
2300.00	39.70	41.90	43.20	41.40	39.90	40.70	43.70	41.20	43.20	39.60	44.50	38.00	41.20	42.20	41.60	41.40	43.70	41.60	42.30	45.00	45.60
2350.00	37.60	40.10	41.20	39.70	37.80	38.60	41.70	39.40	41.20	37.50	42.50	35.70	39.30	40.40	39.80	39.60	41.80	39.70	40.50	43.10	43.90
2400.00	35.40	38.00	39.50	37.60	35.70	36.60	39.80	37.40	39.40	35.40	40.70	33.20	37.30	38.40	37.90	37.80	40.00	37.80	38.40	41.10	42.00
2450.00	33.20	35.90	37.40	35.50	33.30	34.60	37.70	35.30	37.40	33.20	38.70	31.00	35.20	36.20	36.00	35.50	37.90	35.80	36.70	39.30	40.30
2500.00	31.10	33.50	35.50	33.30	31.10	32.30	35.70	33.10	35.30	31.10	36.70	28.90	32.90	33.80	33.70	33.30	35.80	33.60	33.80	37.30	38.30
2550.00	29.10	31.30	33.30	31.20	28.80	30.20	33.40	31.10	33.10	28.90	34.90	26.70	30.70	31.30	31.60	31.20	33.60	31.50	31.50	35.30	36.30
2600.00	27.00	29.30	31.30	29.00	26.80	28.10	31.30	29.00	31.00	27.10	32.20	24.30	28.30	29.20	29.60	29.10	31.40	29.50	29.30	33.10	34.10
2650.00	24.70	27.40	29.30	27.10	24.50	26.00	29.30	27.00	29.00	24.90	30.30	22.10	26.30	27.30	27.60	27.20	29.30	27.60	27.20	31.10	32.20
2700.00	22.50	25.20	27.40	25.00	22.10	23.60	27.20	24.80	26.90	22.60	28.20	19.70	24.20	25.00	25.50	25.00	27.80	25.60	24.80	29.00	30.20
2750.00	20.10	22.90	25.30	22.70	19.60	21.30	24.90	22.60	24.70	20.30	26.40	17.10	22.20	22.50	23.40	22.80	25.10	23.40	22.50	27.00	28.20
2800.00	18.00	20.40	23.30	20.40	17.30	19.20	22.70	20.20	22.40	18.00	24.30	15.10	19.80	20.20	21.20	20.50	22.90	21.20	20.10	24.60	26.30
2850.00	15.30	18.20	21.00	18.20	15.00	16.40	20.30	18.10	20.10	15.70	22.60	12.50	17.20	17.60	19.10	18.20	20.80	19.10	17.50	22.40	24.30
2900.00	13.30	15.80	18.80	16.00	12.60	14.50	18.10	16.00	18.00	13.70	19.30	10.10	15.10	15.20	17.10	15.90	18.30	16.90	15.20	20.10	22.30
2950.00	10.90	13.60	16.30	14.10	10.20	12.10	15.70	13.80	15.50	11.40	17.30	7.30	12.80	13.00	15.10	13.80	16.20	14.80	12.90	18.10	20.10
3000.00	8.20	11.40	14.40	11.80	7.50	9.50	13.60	11.50	13.30	9.00	15.10	5.00	10.30	10.50	12.70	11.60	14.20	12.50	10.50	16.70	17.90
3050.00	6.10	8.50	12.20	9.50	5.20	7.10	11.30	9.30	11.30	6.50	13.10	3.40	7.90	7.90	10.50	9.20	11.90	10.40	7.70	13.40	15.70
3100.00	4.00	6.20	9.70	7.00	3.30	4.90	8.60	7.00	8.90	4.40	10.70	2.10	5.30	5.30	8.10	6.60	9.60	8.00	5.30	11.30	13.60
3150.00	2.30	4.20	7.20	4.90	2.10	3.10	6.30	4.90	6.20	2.90	8.10	1.00	3.60	3.30	6.10	4.50	7.10	5.80	3.40	9.10	11.60
3200.00	1.20	2.70	5.10	3.30	0.90	1.90	4.30	3.00	4.30	1.80	6.00	0.00	2.20	2.30	4.10	2.90	5.00	4.00	2.30	6.30	9.40
3250.00	0.20	1.40	3.30	2.30	0.20	0.50	2.60	2.20	3.00	0.50	4.10	0.00	1.20	0.90	2.70	1.80	3.40	2.30	0.90	4.30	7.10
3300.00	0.20	0.40	2.30	1.20	0.50	0.20	1.50	0.80	1.80	0.20	2.70	0.30	0.20	0.30	1.40	0.80	2.20	1.30	0.30	3.00	5.10
3350.00	0.20	0.30	1.30	0.20	0.40	0.20	0.40	0.20	0.50	0.50	1.50	1.00	0.20	0.30	0.30	0.20	1.00	0.30	0.30	1.50	3.30
3400.00	0.20	0.30	0.30	0.40	0.40	0.20	0.30	0.20	0.10	0.30	0.40	0.40	0.20	0.30	0.20	0.30	0.00	0.00	0.30	0.30	2.30
3450.00	0.20	0.40	0.30	0.40	0.40	0.20	0.30	0.20	0.10	0.80	0.20	0.00	0.50	0.30	0.20	0.50	0.30	0.20	0.30	0.00	1.30
3500.00	0.20	0.70	0.30	0.30	0.30	0.20	0.60	0.20	0.20	0.20	0.20	0.00	0.50	0.30	0.50	0.30	0.60	0.20	0.30	0.00	0.20
3550.00	0.20	0.30	0.30	0.40	0.30	0.20	0.60	0.20	0.50	0.30	0.90	0.00	0.20	0.30	0.60	0.40	0.60	0.20	0.30	0.20	0.20
3600.00	0.20	0.30	0.30	0.40	0.30	0.30	0.30	0.20	0.20	0.30	1.20	0.00	0.20	0.30	0.20	0.40	0.50	0.20	0.30	0.20	0.20
3650.00	0.20	0.30	0.30	0.40	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.40	0.30	0.20	0.30	0.20	0.20
3700.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.40	0.20	0.20	0.30	0.20	0.20
3750.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.30	0.20	0.30	0.20	0.20
3800.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
3850.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
3900.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
3950.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4000.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.20	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4050.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >> raw	216.60	216.60	216.60	216.60	216.60	216.60	216.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	206.60	206.60
time// ceaf >>> VVVVV	51.00	52.00	53.00	54.00	55.00	56.00	57.00	58.00	59.00	60.00	61.00	62.00	63.00	64.00	65.00	66.00	67.00	68.00	69.00	70.00	71.00
4100.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4150.00	0.20	0.30	0.20	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4200.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4250.00	0.20	0.30	0.20	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4300.00	0.20	0.30	0.20	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4350.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4400.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4450.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4500.00	0.20	0.30	0.30	0.30	0.30	0.20	0.20	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4550.00	0.20	0.30	0.20	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4600.00	0.20	0.30	0.20	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4650.00	0.20	0.30	0.20	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4700.00	0.20	0.30	0.20	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4750.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4800.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.20	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4850.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4900.00	0.20	0.30	0.20	0.30	0.30	0.20	0.20	0.20	0.10	0.30	0.20	0.00	0.20	0.30	0.20	0.30	0.20	0.20	0.30	0.20	0.20
4950.00	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.20	0.10	0.30	0.20	0.00	0.20	[illegible]	0.20	0.30	0.20	0.20	0.30	0.20	0.20

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGH[illegible] >>	206.60	206.60	206.60	206.60	206.60	206.60	206.60	206.60	206.60	206.60	Adjusted	Avg Pos	Std Dev	Max	MIN
raw											Time (sec)	(% Withdrn)	(% Withdrn)	(% Withdrn)	Time(sec)
time// cea# >>>	72.00	73.00	74.00	75.00	76.00	77.00	78.00	79.00	80.00	81.00	VVVVVV	avg(b#..bu#)	std(b#..bu#)	max(b#..bu#)	min(b#..bu#)
VVVVV															
0.00	100.10	99.20	99.90	99.90	99.20	99.70	99.90	99.10	99.70	99.20	-140.00	99.59	0.38	100.20	99.10
50.00	100.10	99.20	99.90	99.90	99.30	99.70	99.90	99.10	99.70	99.20	-90.00	99.59	0.38	100.20	99.10
100.00	100.10	99.20	99.90	99.80	99.20	99.80	99.90	99.20	99.70	99.10	-40.00	99.59	0.38	100.20	99.10
150.00	100.10	99.20	99.90	99.90	99.20	99.80	99.90	99.10	99.70	99.20	10.00	99.59	0.38	100.20	99.00
200.00	100.10	99.20	99.90	99.90	99.20	99.70	99.90	99.10	99.70	99.20	60.00	99.59	0.38	100.20	99.10
250.00	100.10	99.20	99.90	99.90	99.20	99.70	99.90	99.10	99.60	99.20	110.00	99.59	0.38	100.20	99.10
300.00	100.10	99.20	99.90	99.90	99.20	99.70	99.90	99.10	99.70	99.20	160.00	99.58	0.38	100.20	99.00
350.00	100.10	99.20	99.90	99.90	99.20	99.80	99.90	99.10	99.70	99.20	210.00	99.58	0.38	100.20	99.00
400.00	100.10	99.20	99.90	99.80	99.20	99.80	99.90	99.10	99.70	99.20	260.00	99.58	0.38	100.20	99.10
450.00	100.10	99.20	99.90	99.90	99.20	99.70	99.90	99.10	99.70	99.20	310.00	99.58	0.38	100.20	99.00
500.00	100.00	99.20	99.90	99.90	99.20	99.80	99.90	99.10	99.70	99.20	360.00	99.58	0.37	100.20	99.10
550.00	99.80	99.20	99.90	99.90	99.30	99.80	99.50	99.10	99.70	99.20	410.00	99.52	0.37	100.20	99.10
600.00	99.20	99.20	99.50	99.90	99.20	99.10	99.20	99.10	99.70	99.20	460.00	99.31	0.28	100.10	98.90
650.00	98.10	99.10	99.20	99.90	99.20	99.10	98.40	99.10	99.70	99.20	510.00	98.79	0.52	99.90	97.80
700.00	97.20	98.00	98.50	99.20	98.10	97.60	97.50	99.00	99.40	98.10	560.00	97.86	0.69	99.40	96.60
750.00	96.00	97.00	97.50	98.50	97.40	97.80	96.10	97.90	99.00	97.10	610.00	96.89	0.79	99.00	95.10
800.00	95.00	95.30	96.30	97.30	96.10	95.50	94.90	96.80	98.10	96.10	660.00	95.42	0.88	98.10	93.80
850.00	93.20	94.10	95.10	96.20	95.30	94.10	93.40	95.30	97.20	94.90	710.00	94.00	1.01	97.20	92.00
900.00	92.00	92.90	94.10	95.00	93.10	92.70	91.90	94.10	96.00	93.20	760.00	92.53	1.02	96.00	90.50
950.00	90.60	91.30	92.30	93.80	91.90	91.30	90.60	92.80	94.90	92.00	810.00	91.07	1.10	94.90	89.00
1000.00	89.20	90.10	91.30	92.10	90.80	89.80	89.10	91.30	93.40	90.50	860.00	89.49	1.18	93.40	87.20
1050.00	87.40	88.30	89.50	91.00	89.10	88.20	87.40	90.10	92.00	89.10	910.00	87.86	1.29	92.00	85.00
1100.00	86.20	87.00	88.30	89.30	87.80	86.60	86.90	88.40	90.80	87.40	960.00	86.10	1.42	90.80	83.10
1150.00	84.10	85.00	86.40	87.80	86.00	84.80	84.00	87.00	89.20	85.70	1010.00	84.27	1.48	89.20	81.20
1200.00	82.70	83.30	84.90	86.20	84.20	83.00	82.30	85.10	87.90	84.10	1060.00	82.55	1.63	87.90	79.30
1250.00	81.00	82.00	83.10	84.30	82.60	81.40	80.80	83.40	86.20	82.20	1110.00	80.79	1.64	86.20	77.70
1300.00	79.20	80.10	81.40	82.90	80.90	79.70	78.90	82.10	84.40	80.50	1160.00	79.10	1.58	84.40	75.80
1350.00	77.90	78.40	80.10	81.10	79.30	78.10	77.30	80.20	82.90	79.10	1210.00	77.37	1.68	82.90	73.80
1400.00	76.20	77.00	78.30	79.50	77.80	76.30	75.50	78.80	81.00	77.30	1260.00	75.57	1.78	81.00	71.70
1450.00	74.20	75.20	76.80	78.20	76.10	74.80	73.70	77.30	79.50	75.50	1310.00	73.72	1.90	79.50	69.70
1500.00	72.30	73.30	75.30	76.30	74.40	72.80	71.70	75.40	78.10	73.90	1360.00	71.78	2.00	78.10	67.80
1550.00	70.70	71.30	73.30	74.50	72.40	70.70	69.90	73.70	76.30	72.00	1410.00	69.90	2.02	76.30	66.00
1600.00	69.00	69.80	71.50	73.00	70.70	69.00	68.00	72.00	74.70	70.20	1460.00	68.08	2.06	74.70	64.00
1650.00	67.00	68.00	70.10	71.00	69.00	67.10	66.20	70.10	73.00	68.30	1510.00	66.25	2.11	73.00	62.00
1700.00	65.30	66.30	68.90	69.20	67.20	65.60	64.30	68.30	71.00	66.50	1560.00	64.39	2.16	71.00	59.80
1750.00	63.40	64.30	66.10	67.30	65.60	63.70	62.40	66.50	69.20	64.90	1610.00	62.45	2.33	69.20	57.10
1800.00	61.50	62.40	65.00	65.60	63.80	61.90	60.50	65.10	67.50	63.10	1660.00	60.53	2.44	67.50	56.30
1850.00	59.50	60.50	63.30	64.20	62.10	60.00	58.40	63.30	66.00	61.20	1710.00	58.52	2.57	66.00	53.30
1900.00	57.50	58.60	61.30	62.20	60.20	58.00	56.50	61.30	64.20	59.10	1760.00	56.55	2.56	64.20	51.00
1950.00	55.70	56.80	59.40	60.30	58.20	56.10	54.40	59.30	62.30	57.20	1810.00	54.62	2.57	62.30	48.80
2000.00	53.70	54.90	57.80	58.20	56.40	54.10	52.60	57.40	60.50	55.20	1860.00	52.73	2.64	60.50	46.30
2050.00	51.90	53.30	56.10	56.50	54.50	52.50	50.60	55.70	58.70	53.30	1910.00	50.75	2.79	58.70	44.10
2100.00	49.90	51.30	54.10	54.60	52.90	50.50	48.60	53.90	57.00	51.40	1960.00	48.73	2.94	57.00	41.80
2150.00	47.90	49.30	52.40	52.90	50.90	48.50	46.50	52.20	55.00	49.40	2010.00	46.64	3.04	55.00	39.70
2200.00	45.70	47.30	50.50	51.00	49.00	46.30	44.60	50.30	53.30	47.40	2060.00	44.57	3.11	53.30	37.30

ANO-2 CEA DROP TIME TEST DATA – MAY 15, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >> raw time// cea# >>> VVVVV	206.60 72.00	206.60 73.00	206.60 74.00	206.60 75.00	206.60 76.00	206.60 77.00	206.60 78.00	206.60 79.00	206.60 80.00	206.60 81.00	Adjusted Time (sec) VVVVVV	Avg Pos (% Withdrn) avg(b#..buf)	Std Dev (% Withdrn) std(b#..buf)	Max (% Withdrn) max(b#..buf)	MIN Time(sec) min(b#..buf)
2250.00	43.70	45.10	48.80	49.10	46.90	44.30	42.40	48.30	51.70	45.20	2110.00	42.52	3.16	51.70	34.90
2300.00	41.60	43.10	46.80	47.20	44.90	42.30	40.50	46.20	49.30	43.20	2160.00	40.46	3.21	49.30	32.30
2350.00	39.80	41.10	45.00	45.10	42.90	40.50	38.40	44.20	48.80	41.00	2210.00	38.43	3.40	48.80	29.90
2400.00	37.60	39.30	43.10	43.10	40.90	38.50	36.30	42.30	45.30	39.10	2260.00	36.28	3.51	45.30	27.70
2450.00	35.50	37.30	41.10	41.10	39.00	36.40	34.00	40.50	43.90	37.00	2310.00	34.13	3.67	43.90	25.30
2500.00	33.20	35.30	39.40	39.30	36.90	34.10	31.80	38.50	42.20	34.70	2360.00	31.94	3.75	42.20	22.70
2550.00	31.10	33.10	37.40	37.20	34.80	32.00	29.70	36.60	40.50	32.40	2410.00	29.77	3.84	40.50	20.00
2600.00	29.10	31.10	35.40	35.10	32.50	29.80	27.60	34.50	38.60	30.30	2460.00	27.57	3.93	38.60	17.40
2650.00	27.20	28.90	33.20	32.70	30.30	27.90	25.40	32.30	37.00	28.20	2510.00	25.38	4.11	37.00	15.10
2700.00	24.80	26.90	31.20	30.50	28.20	25.80	23.20	30.20	34.10	26.10	2560.00	23.10	4.22	34.10	12.50
2750.00	22.40	24.50	29.20	28.30	26.10	23.70	20.80	28.10	32.30	23.80	2610.00	20.77	4.35	32.30	9.80
2800.00	20.10	22.40	27.40	26.40	23.90	21.30	18.50	26.30	30.30	21.30	2660.00	18.52	4.44	30.30	7.00
2850.00	17.90	20.10	25.40	24.30	21.70	19.00	16.10	24.00	28.30	19.10	2710.00	16.17	4.56	28.30	4.90
2900.00	15.40	18.00	23.30	22.00	19.70	16.70	14.00	21.70	26.40	16.60	2760.00	13.83	4.68	26.40	2.50
2950.00	13.30	15.50	21.20	19.40	18.50	14.70	11.70	19.30	24.30	14.60	2810.00	11.49	4.73	24.30	1.60
3000.00	11.10	13.40	19.10	17.20	15.00	12.30	9.30	17.20	22.20	12.40	2860.00	9.27	4.70	22.20	0.10
3050.00	8.30	11.30	17.10	15.10	12.50	10.00	6.60	14.90	19.90	9.90	2910.00	7.22	4.37	19.90	0.30
3100.00	6.10	8.80	15.10	12.70	10.10	7.40	4.50	12.50	17.80	7.30	2960.00	5.31	3.93	17.80	0.20
3150.00	4.00	6.20	13.10	10.30	7.50	5.10	2.80	10.30	15.50	5.20	3010.00	3.68	3.39	15.50	0.00
3200.00	2.30	4.20	10.80	7.70	5.20	3.40	1.70	7.50	13.40	3.30	3060.00	2.53	2.68	13.40	0.00
3250.00	1.20	3.00	8.50	6.30	3.40	2.10	0.40	5.30	11.20	2.30	3110.00	1.68	2.02	11.20	0.00
3300.00	0.20	1.50	6.30	3.60	2.30	1.00	0.10	3.20	9.10	1.00	3160.00	1.11	1.49	9.10	0.00
3350.00	0.20	0.30	4.60	2.30	1.10	0.00	0.00	2.20	6.70	0.20	3210.00	0.71	1.02	6.70	0.00
3400.00	0.20	0.20	3.10	1.30	0.20	0.30	0.50	1.10	4.70	0.20	3260.00	0.42	0.68	4.70	0.00
3450.00	0.50	0.20	2.30	0.20	0.50	0.50	0.30	0.10	3.00	0.20	3310.00	0.37	0.44	3.00	0.00
3500.00	0.50	0.20	1.30	0.20	0.40	1.60	0.30	0.00	2.00	0.20	3360.00	0.34	0.31	2.00	0.00
3550.00	0.20	0.20	0.30	0.20	0.40	0.80	0.10	0.20	1.00	0.20	3410.00	0.30	0.16	1.00	0.00
3600.00	0.20	0.20	0.30	0.60	0.40	0.10	0.30	0.20	0.00	0.20	3460.00	0.26	0.17	1.20	0.00
3650.00	0.20	0.20	0.30	0.50	0.40	0.20	0.30	0.20	0.00	0.20	3510.00	0.23	0.12	0.70	0.00
3700.00	0.20	0.20	0.60	0.20	0.40	0.20	0.30	0.20	0.30	0.20	3560.00	0.24	0.11	0.60	0.00
3750.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.00	0.30	0.20	3610.00	0.23	0.10	0.50	0.00
3800.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.30	0.20	3660.00	0.23	0.10	0.60	0.00
3850.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	3710.00	0.22	0.10	0.50	0.00
3900.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.30	3760.00	0.23	0.10	0.50	0.00
3950.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	3810.00	0.22	0.10	0.50	0.00
4000.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	3860.00	0.23	0.10	0.50	0.00
4050.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	3910.00	0.23	0.10	0.50	0.00
4100.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	3960.00	0.22	0.10	0.50	0.00
4150.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	4010.00	0.22	0.10	0.50	0.00
4200.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	4060.00	0.22	0.11	0.50	0.00
4250.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	4110.00	0.22	0.11	0.50	0.00
4300.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	4160.00	0.22	0.10	0.50	0.00
4350.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	4210.00	0.22	0.10	0.50	0.00
4400.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	4260.00	0.22	0.10	0.50	0.00
4450.00	0.20	0.20	0.30	0.20	0.30	0.20	0.30	0.20	0.00	0.20	4310.00	0.22	0.10	0.50	0.00

ANO-2 CEA DROP TIME TEST DATA - MAY 18, 1988 Measured CEA Position (% Withdrawn) versus CEA Number

WEIGHT (lbs) >> raw time// cea# >>> VVVVV	206.60 72.00	206.60 73.00	206.60 74.00	206.60 75.00	206.60 76.00	206.60 77.00	206.60 78.00	206.60 79.00	206.60 80.00	206.60 81.00	Adjusted Time (sec) VVVVV	Avg Pos (% Withdrn) avg(bf..buf)	Std Dev (% Withdrn) std(bf..buf)	Max (% Withdrn) max(bf..buf)	MIN Time(sec) min(bf..buf)
4500.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	4360.00	0.22	0.10	0.50	0.00
4550.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	4410.00	0.22	0.10	0.50	0.00
4600.00	0.20	0.20	0.30	0.20	0.30	0.20	0.30	0.20	0.00	0.20	4460.00	0.21	0.10	0.50	0.00
4650.00	0.20	0.20	0.30	0.20	0.30	0.20	0.30	0.20	0.00	0.20	4510.00	0.22	0.10	0.50	0.00
4700.00	0.20	0.20	0.30	0.20	0.30	0.10	0.30	0.20	0.00	0.20	4560.00	0.22	0.10	0.50	0.00
4750.00	0.20	0.20	0.30	0.20	0.30	0.20	0.30	0.20	0.00	0.20	4610.00	0.22	0.10	0.50	0.00
4800.00	0.20	0.20	0.30	0.20	0.30	0.20	0.30	0.20	0.00	0.20	4660.00	0.21	0.10	0.50	0.00
4850.00	0.20	0.20	0.30	0.20	0.30	0.20	0.30	0.20	0.00	0.20	4710.00	0.22	0.10	0.50	0.00
4900.00	0.20	0.20	0.30	0.20	0.30	0.20	0.30	0.20	0.00	0.20	4760.00	0.21	0.10	0.50	0.00
4950.00	0.20	0.20	0.30	0.20	0.40	0.20	0.30	0.20	0.00	0.20	4810.00	0.22	0.10	0.50	0.00

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 CEA Drop Times versus CEA Number

WEIGHT (lbs) >>	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	232.60	225.60
raw time// ceaff >>> VVVVV	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	1.00
time to 90% inserted >>>>>>>	2.723	2.708	2.677	2.719	2.783	2.748	2.717	2.738	2.708	2.801	2.608	2.729	2.756	2.813	2.728	2.772	2.747	2.746	2.743	2.858	2.681
time to 75% inserted >>>>>>>	2.414	2.391	2.368	2.414	2.480	2.443	2.414	2.436	2.397	2.486	2.316	2.414	2.444	2.493	2.423	2.447	2.445	2.443	2.424	2.550	2.379
time to 50% inserted >>>>>>>	1.843	1.815	1.798	1.853	1.915	1.872	1.855	1.869	1.841	1.890	1.783	1.845	1.876	1.913	1.865	1.870	1.896	1.874	1.848	1.938	1.813
time to 25% inserted >>>>>>	1.218	1.183	1.180	1.238	1.290	1.242	1.238	1.232	1.220	1.248	1.189	1.220	1.239	1.251	1.235	1.235	1.268	1.257	1.215	1.274	1.192
time to 1 % inserted >>>>>>	0.514	0.472	0.480	0.524	0.584	0.543	0.518	0.510	0.493	0.489	0.473	0.478	0.532	0.540	0.475	0.504	0.510	0.510	0.505	0.513	0.480
coil decay time >>>>>>	0.408	0.367	0.364	0.418	0.462	0.472	0.421	0.459	0.410	0.423	0.378	0.373	0.466	0.471	0.413	0.455	0.444	0.420	0.459	0.427	0.372

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 CEA Drop Times versus CEA Number

WEIGHT (lbs) >>	225.60	225.60	225.60	225.60	225.60	225.60	225.60	225.60	219.60	219.60	219.60	219.60	219.60	219.60	219.60	219.60	218.60	218.60	218.60	218.60	218.60
raw time/ coil >>>	30.00	31.00	32.00	33.00	34.00	35.00	36.00	37.00	38.00	39.00	40.00	41.00	42.00	43.00	44.00	45.00	46.00	47.00	48.00	49.00	50.00
VVVVV																					
time to 90% inserted >>>>>>>	2.850	2.751	2.767	2.869	2.752	2.730	2.838	2.772	2.880	2.783	2.848	2.854	2.840	2.754	2.880	2.950	2.902	2.979	2.882	2.948	2.885
time to 75% inserted >>>>>>>	2.526	2.446	2.454	2.543	2.447	2.433	2.514	2.464	2.548	2.445	2.518	2.518	2.525	2.445	2.523	2.624	2.563	2.646	2.549	2.615	2.531
time to 50% inserted >>>>>>>	1.934	1.887	1.895	1.943	1.883	1.878	1.920	1.900	1.940	1.887	1.913	1.920	1.940	1.884	1.933	2.018	1.939	2.042	1.938	1.990	1.928
time to 25% inserted >>>>>>	1.275	1.268	1.268	1.288	1.249	1.248	1.260	1.275	1.269	1.239	1.239	1.270	1.288	1.252	1.271	1.345	1.260	1.363	1.267	1.304	1.302
time to 1 % inserted >>>>>>	0.497	0.514	0.527	0.519	0.533	0.520	0.481	0.528	0.543	0.520	0.475	0.524	0.510	0.503	0.522	0.578	0.474	0.601	0.526	0.555	0.528
coil decay time >>>>>>	0.405	0.428	0.418	0.415	0.469	0.414	0.410	0.421	0.472	0.457	0.368	0.415	0.422	0.415	0.413	0.484	0.371	0.558	0.466	0.506	0.425

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 CEA Drop Times versus CEA Number

WEIGHT (lbs) >> raw	216.60	216.60	216.60	216.60	216.60	216.60	216.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	213.60	208.60	208.60
time// ceal >>> VVVVV	51.00	52.00	53.00	54.00	55.00	56.00	57.00	58.00	59.00	60.00	61.00	62.00	63.00	64.00	65.00	66.00	67.00	68.00	69.00	70.00	71.00
time to 90% inserted >>>>>>>	2.827	2.884	2.954	2.899	2.814	2.950	2.934	2.894	2.937	2.839	2.973	2.762	2.886	2.870	2.920	2.893	2.951	2.918	2.889	2.990	3.048
time to 75% inserted >>>>>>>	2.503	2.564	2.618	2.560	2.499	2.531	2.608	2.555	2.603	2.508	2.643	2.445	2.541	2.560	2.572	2.560	2.612	2.572	2.556	2.652	2.693
time to 50% inserted >>>>>>>	1.917	1.960	1.992	1.944	1.918	1.939	2.005	1.947	1.993	1.898	2.024	1.868	1.958	1.984	1.945	1.952	2.003	1.945	1.985	2.035	2.044
time to 25% inserted >>>>>>	1.265	1.292	1.294	1.269	1.268	1.291	1.323	1.285	1.323	1.242	1.347	1.218	1.301	1.322	1.268	1.281	1.325	1.268	1.344	1.348	1.336
time to 1 % inserted >>>>>>	0.505	0.534	0.528	0.520	0.530	0.554	0.562	0.544	0.573	0.525	0.576	0.464	0.555	0.563	0.531	0.530	0.505	0.503	0.605	0.538	0.551
coil decay time >>>>>>	0.459	0.462	0.429	0.464	0.464	0.471	0.512	0.469	0.514	0.465	0.480	0.358	0.509	0.463	0.480	0.464	0.459	0.458	0.524	0.417	0.508

ANO-2 CEA DROP TIME TEST DATA - MAY 18, 1988 CEA Drop Time versus CEA Number

WEIGHT (lbs) >>	206.60	206.60	206.60	206.60	206.60	206.60	206.60	206.60	206.60	206.60	Avg Poe	Std Dev	Max	MIN
raw											Time (sec)	Time (sec)	Time (sec)	Time (sec)
time// cea# >>>	72.00	73.00	74.00	75.00	76.00	77.00	78.00	79.00	80.00	81.00	avg(b#..bu#)	std(b#..bu#)	max(b#..bu#)	min(b#..bu#)
VVVVV														
time to 90% inserted >>>>>>>	2.880	2.936	3.077	3.016	2.982	2.910	2.845	3.015	3.139	2.908	2.846	0.103	3.139	2.808
time to 75% inserted >>>>>>>	2.556	2.600	2.720	2.693	2.635	2.579	2.519	2.688	2.793	2.584	2.524	0.092	2.793	2.316
time to 50% inserted >>>>>>>	1.958	1.993	2.075	2.088	2.034	1.973	1.975	2.068	2.145	1.995	1.932	0.071	2.145	1.7[illegible]1
time to 25% inserted >>>>>>>	1.290	1.315	1.368	1.396	1.342	1.298	1.274	1.372	1.451	1.326	1.278	0.050	1.451	1.180
time to 1 % inserted >>>>>>>	0.465	0.551	0.531	0.583	0.554	0.522	0.479	0.599	0.626	0.56	0.525	0.036	0.626	0.480
coil decay time >>>>>>	0.341	0.474	0.416	0.511	0.505	0.422	0.367	0.523	0.523	0.510	0.444	0.048	0.558	0.341

ANO-2 CEA DROP TIME TEST DATA – MAY 18, 1988 Summary Data By CEA Drop Weight Group

time seconds	Summary 232.60 AVERAGE	position 225.60 AVERAGE	data by 219.60 AVERAGE	weight 216.60 AVERAGE	group 213.60 AVERAGE	(% withd) 206.60 AVERAGE
-0.14	99.89	99.82	99.71	99.33	99.43	99.58
-0.09	99.89	99.82	99.71	99.31	99.43	99.59
0.00	99.89	99.82	99.73	99.32	99.43	99.58
0.01	99.89	99.82	99.71	99.32	99.43	99.59
0.06	99.89	99.82	99.71	99.32	99.43	99.58
0.11	99.89	99.82	99.73	99.32	99.43	99.58
0.16	99.87	99.82	99.71	99.32	99.43	99.58
0.21	99.88	99.82	99.70	99.32	99.42	99.58
0.26	99.88	99.82	99.70	99.31	99.43	99.58
0.31	99.88	99.82	99.70	99.31	99.43	99.58
0.36	99.87	99.82	99.71	99.33	99.43	99.58
0.41	99.59	99.78	99.63	99.29	99.36	99.54
0.46	99.33	99.27	99.36	99.21	99.36	99.34
0.51	98.58	98.86	98.85	98.75	98.80	99.12
0.56	97.58	97.71	97.90	97.79	98.10	98.28
0.61	96.32	96.58	96.78	96.64	96.85	97.34
0.66	94.97	95.17	95.44	95.36	95.68	96.14
0.71	93.42	93.77	94.05	93.96	94.29	94.89
0.76	91.97	92.20	92.53	92.46	92.83	93.51
0.81	90.32	90.77	91.10	91.14	91.37	92.13
0.86	88.69	89.11	89.49	89.48	89.88	90.76
0.91	86.92	87.50	87.83	87.96	88.27	89.21
0.96	85.01	85.64	86.04	86.19	86.58	87.74
1.01	83.11	83.74	84.20	84.39	84.83	85.99
1.06	81.28	82.00	82.43	82.65	83.07	84.36
1.11	79.48	80.31	80.73	80.96	81.35	82.88
1.16	77.73	78.56	79.05	79.37	79.67	81.01
1.21	75.87	76.76	77.26	77.74	77.94	79.44
1.26	73.98	74.89	75.44	76.03	76.21	77.77
1.31	71.95	73.00	73.50	74.28	74.40	76.10
1.36	69.97	70.94	71.56	72.21	72.57	74.36
1.41	68.03	69.00	69.69	70.48	70.68	72.49
1.46	66.16	67.14	67.86	68.82	68.85	70.80
1.51	64.24	65.29	66.11	66.90	67.02	68.99
1.56	62.25	63.42	64.19	65.13	65.22	67.24
1.61	60.15	61.42	62.28	63.29	63.41	65.39
1.66	58.13	59.36	60.28	61.43	61.53	63.72
1.71	56.02	57.27	58.25	59.40	59.58	61.91
1.76	54.05	55.28	56.29	57.43	57.59	59.95
1.81	52.11	53.30	54.41	55.51	55.68	58.01
1.86	50.09	51.48	52.60	53.69	53.79	56.14

Summary 232.60 MINIMUM	position 225.60 MINIMUM	data by 219.60 MINIMUM	weight 216.60 MINIMUM	group 213.60 MINIMUM	(% withd) 206.60 MINIMUM
99.10	99.20	99.10	99.10	99.10	99.10
99.10	99.20	99.10	99.10	99.10	99.10
99.10	99.20	99.10	99.10	99.10	99.10
99.10	99.20	99.10	99.00	99.10	99.10
99.10	99.20	99.10	99.10	99.10	99.10
99.10	99.20	99.10	99.10	99.10	99.10
99.10	99.20	99.10	99.00	99.10	99.10
99.10	99.20	99.10	99.10	99.00	99.10
99.10	99.20	99.10	99.10	99.10	99.10
99.10	99.20	99.10	99.00	99.10	99.10
99.10	99.20	99.10	99.10	99.10	99.10
99.10	99.20	99.10	99.10	99.10	99.10
99.10	99.20	99.10	99.10	99.10	99.10
98.00	98.90	99.00	99.10	99.10	99.10
97.80	97.80	98.00	98.00	97.90	98.10
96.80	96.90	97.00	97.00	96.80	97.20
95.10	95.80	95.80	95.90	95.10	96.30
93.80	94.00	94.10	94.30	94.00	94.90
92.00	92.70	92.90	93.00	92.10	93.20
90.50	91.10	91.30	91.40	91.10	91.90
89.00	89.20	89.80	90.10	89.20	90.80
87.20	87.60	88.20	88.20	87.80	89.10
85.00	86.00	86.30	86.90	86.10	87.40
83.10	83.90	84.60	84.90	84.00	85.90
81.20	81.90	83.00	83.20	82.20	84.00
79.30	80.00	81.10	81.70	80.80	82.30
77.70	78.20	79.30	80.00	79.10	80.80
75.80	78.20	77.80	78.30	77.10	78.90
73.50	74.30	76.10	76.60	75.30	77.30
71.70	72.20	74.20	74.90	73.50	75.50
69.70	70.10	72.10	73.10	71.80	73.70
67.80	68.20	70.10	71.00	69.90	71.70
66.00	66.30	68.10	69.30	67.90	69.90
64.00	64.40	66.30	67.40	66.10	68.00
62.00	62.40	64.40	65.90	64.20	66.20
59.60	60.30	62.40	64.00	62.20	64.30
57.10	58.10	60.40	62.10	60.20	62.40
55.30	56.00	58.20	60.30	58.10	60.50
53.30	54.00	56.20	58.10	56.10	58.40
51.00	52.20	54.10	56.10	54.10	56.50
48.80	50.10	52.30	54.10	52.30	54.40
46.30	48.20	50.30	52.30	50.30	52.60

Summary 232.60 MAXIMUM	position 225.60 MAXIMUM	data by 219.60 MAXIMUM	weight 216.60 MAXIMUM	group 213.60 MAXIMUM	(% withd) 206.60 MAXIMUM
100.20	100.20	100.10	100.10	100.10	100.10
100.20	100.20	100.10	100.10	100.20	100.10
100.20	100.20	100.10	100.10	100.10	100.10
100.20	100.20	100.10	100.10	100.10	100.10
100.20	100.20	100.10	100.10	100.10	100.10
100.20	100.20	100.10	100.10	100.10	100.10
100.20	100.20	100.10	100.10	100.10	100.10
100.20	100.20	100.10	100.10	100.10	100.10
100.20	100.20	100.10	100.10	100.10	100.10
100.10	100.20	100.10	100.10	100.10	100.10
100.10	100.20	100.10	100.10	100.10	100.00
100.20	100.20	100.10	100.10	100.10	99.90
100.00	100.00	99.80	99.80	100.10	99.90
99.30	99.30	99.20	99.70	99.60	99.90
98.90	98.10	99.20	99.30	99.20	99.40
97.80	97.20	98.10	98.10	98.10	99.00
96.60	96.10	97.10	97.10	97.10	98.10
95.10	94.70	96.00	95.90	95.90	97.20
93.90	93.10	94.50	94.20	94.30	96.00
92.10	91.60	93.10	93.10	93.00	94.90
90.70	90.10	91.70	91.50	91.50	93.40
89.20	88.30	90.20	90.20	90.10	92.00
87.30	86.50	88.40	88.40	88.40	90.80
85.20	84.80	86.90	86.80	86.70	89.20
83.40	82.90	85.10	85.10	85.00	87.90
81.70	81.10	83.20	83.30	83.20	86.20
79.80	79.20	81.40	81.80	81.30	84.40
78.20	77.70	79.90	80.10	79.80	82.90
76.20	76.00	78.30	78.40	78.10	81.00
74.20	74.20	76.30	76.80	76.40	79.50
72.10	72.10	74.50	75.10	74.50	78.10
70.10	70.10	72.50	73.30	72.80	76.30
68.10	68.30	70.80	71.10	70.90	74.70
66.30	66.50	69.00	69.20	69.10	73.00
64.40	64.80	67.10	67.30	67.10	71.00
62.50	63.00	65.30	65.90	65.50	69.20
60.60	61.10	63.40	64.20	63.80	67.50
58.50	59.00	61.60	62.30	62.00	66.00
56.50	57.00	59.60	60.30	60.20	64.20
54.60	55.00	57.80	58.20	58.10	62.30
53.00	53.30	56.00	56.30	56.20	60.50

ANO-2 CEA DROP TIME TEST DA 'A – MAY 18, 1988 Summary Data By CEA Drop Weight Group

time seconds	Summary 232.60 AVERAGE	position 225.60 AVERAGE	data by 219.80 AVERAGE	weight 216.80 AVERAGE	group 213.60 AVERAGE	(% withd) 208.60 AVERAGES
1.91	47.97	49.24	50.83	51.83	51.89	54.37
1.96	45.78	47.22	48.81	49.93	49.91	52.53
2.01	43.59	44.96	46.53	47.88	47.87	50.60
2.06	41.48	42.84	44.41	45.86	45.78	48.65
2.11	39.39	40.79	42.41	43.76	43.72	46.69
2.16	37.21	38.71	40.41	41.81	41.70	44.64
2.21	34.99	36.60	38.34	39.86	39.78	42.82
2.26	32.68	34.33	36.21	37.89	37.79	40.72
2.31	30.38	32.01	34.04	35.83	35.70	38.78
2.36	28.15	29.72	31.83	33.64	33.48	36.75
2.41	25.90	27.54	29.64	31.47	31.34	34.70
2.46	23.59	25.27	27.51	29.38	29.17	32.59
2.51	21.17	22.86	25.34	27.30	27.15	30.53
2.56	18.75	20.48	23.05	25.22	25.00	28.35
2.61	16.33	18.04	20.68	22.87	22.74	26.20
2.66	14.01	15.73	18.41	20.71	20.48	24.07
2.71	11.80	13.22	16.04	18.34	18.21	21.88
2.76	9.03	10.83	13.95	16.10	15.90	19.58
2.81	6.68	8.37	11.30	13.94	13.66	17.39
2.86	4.55	6.10	9.16	11.58	11.35	15.23
2.91	3.01	4.24	6.80	9.23	9.09	12.89
2.96	1.64	2.67	4.91	6.68	6.78	10.62
3.01	0.74	1.41	3.15	4.85	4.74	8.38
3.06	0.42	0.84	2.06	3.24	3.18	6.27
3.11	0.49	0.46	1.09	1.92	1.92	4.51
3.16	0.56	0.50	0.49	1.09	1.01	3.03
3.21	0.48	0.51	0.33	0.52	0.53	1.87
3.26	0.27	0.37	0.25	0.27	0.23	1.20
3.31	0.25	0.37	0.33	0.27	0.30	0.76
3.36	0.28	0.29	0.33	0.33	0.29	0.57
3.41	0.26	0.24	0.24	0.34	0.38	0.33
3.46	0.25	0.23	0.21	0.26	0.33	0.24
3.51	0.25	0.23	0.19	0.23	0.23	0.24
3.56	0.26	0.24	0.19	0.23	0.22	0.27
3.61	0.25	0.26	0.20	0.23	0.22	0.23
3.66	0.26	0.23	0.19	0.23	0.21	0.24
3.71	0.26	0.23	0.19	0.22	0.21	0.22
3.76	0.26	0.23	0.19	0.23	0.21	0.23
3.85	0.25	0.23	0.18	0.22	0.21	0.22
3.86	0.25	0.24	0.19	0.23	0.20	0.22
4.00	0.25	0.23	0.19	0.23	0.21	0.22

Summary 232.60 MINIMUM	position 225.60 MINIMUM	data by 219.80 MINIMUM	weight 216.80 MINIMUM	group 213.60 MINIMUM	(% withd) 208.60 MINIMUM
44.10	46.00	48.20	50.30	48.30	50.60
41.80	43.80	46.00	48.20	46.00	48.80
39.70	41.50	44.00	46.00	43.90	46.50
37.30	39.40	41.80	44.00	41.90	44.60
34.90	37.30	39.90	41.70	40.10	42.40
32.30	35.20	37.80	39.70	38.00	40.50
29.90	32.90	35.40	37.60	35.70	38.40
27.70	30.50	33.20	35.40	33.20	36.30
25.30	28.10	31.10	33.20	31.00	34.00
22.70	26.00	28.80	31.10	28.90	31.80
20.00	23.40	26.60	28.80	26.70	29.70
17.40	21.00	24.30	26.80	24.30	27.60
15.10	18.40	21.90	24.50	22.10	25.40
12.50	16.10	19.40	22.10	19.70	23.20
9.80	13.80	16.90	19.80	17.10	20.80
7.00	11.30	14.70	17.30	15.10	18.50
4.90	8.20	12.20	15.00	12.50	16.10
2.50	6.00	9.70	12.60	10.10	14.00
1.50	4.00	6.80	10.20	7.30	11.70
0.10	2.30	4.70	7.50	5.00	9.30
0.30	0.80	3.10	5.20	3.40	6.80
0.20	0.20	2.10	3.30	2.10	4.50
0.00	0.00	0.80	2.10	1.00	2.80
0.00	0.20	0.20	0.90	0.00	1.70
0.00	0.20	0.10	0.20	0.00	0.40
0.00	0.20	0.00	0.20	0.20	0.10
0.00	0.20	0.00	0.10	0.20	0.00
0.00	0.00	0.00	0.10	0.00	0.20
0.00	0.20	0.10	0.00	0.00	0.00
0.00	0.10	0.10	0.10	0.00	0.00
0.00	0.20	0.00	0.20	0.00	0.10
0.00	0.20	0.00	0.10	0.00	0.00
0.00	0.20	0.00	0.00	0.00	0.20
0.00	0.20	0.00	0.00	0.00	0.00
0.00	0.20	0.00	0.00	0.00	0.20
0.00	0.20	0.00	0.00	0.00	0.00
0.00	0.20	0.00	0.10	0.00	0.00
0.00	0.20	0.00	0.00	0.00	0.00
0.00	0.20	0.00	0.10	0.00	0.00

Summary 232.60 MAXIMUM	position 225.60 MAXIMUM	data by 219.80 MAXIMUM	weight 216.80 MAXIMUM	group 213.60 MAXIMUM	(% withd) 208.60 MAXIMUM
51.00	51.30	54.10	54.50	54.20	58.70
49.10	49.30	52.30	53.00	52.40	57.00
47.20	47.30	50.30	51.20	50.50	55.00
45.00	45.10	48.30	49.30	48.70	53.30
43.00	43.10	46.20	47.33	46.60	51.70
41.00	41.10	44.20	45.20	44.50	49.30
39.20	39.30	42.20	43.20	42.50	48.80
37.20	37.30	40.40	41.20	40.70	45.30
35.20	35.30	38.40	39.40	38.70	43.90
32.90	33.00	36.40	37.40	36.70	42.20
30.80	30.80	34.10	35.30	34.90	40.50
28.60	28.50	32.10	32.90	32.20	38.50
26.70	26.40	30.00	30.70	30.30	37.00
24.60	24.30	27.90	28.50	28.20	34.10
22.40	22.20	25.60	26.50	25.40	32.30
20.10	19.70	23.40	24.40	24.30	30.30
17.90	17.30	21.10	22.30	22.60	28.30
15.50	15.10	18.80	19.90	19.30	26.40
13.50	12.90	16.40	17.50	17.30	24.30
11.40	10.40	14.40	15.30	15.10	22.20
8.90	8.10	12.00	13.40	13.10	19.90
6.30	5.70	9.50	11.00	10.70	17.80
4.40	4.00	7.00	8.40	8.10	15.50
2.80	2.30	4.80	6.20	6.00	13.40
1.50	1.30	3.00	4.20	4.10	11.20
1.30	1.30	2.10	2.90	2.70	9.10
1.40	1.00	0.70	1.80	1.50	6.70
0.60	0.60	0.80	0.40	0.40	4.70
0.60	0.60	0.60	0.40	0.80	3.00
0.60	0.60	0.50	0.70	0.60	2.00
0.50	0.40	0.50	0.60	0.90	1.00
0.50	0.40	0.40	0.70	1.20	0.80
0.70	0.40	0.40	0.40	0.40	0.50
0.50	0.40	0.40	0.30	0.40	0.60
0.50	0.40	0.40	0.30	0.30	0.40
0.60	0.40	0.40	0.30	0.30	0.40
0.50	0.40	0.40	0.30	0.30	0.40
0.50	0.40	0.40	0.30	0.30	0.40
0.50	0.40	0.30	0.30	0.30	0.40
0.50	0.40	0.40	0.30	0.30	0.40
0.50	0.40	0.40	0.30	0.30	0.40

ANO-2 CEA DROP TIME TEST DATA – MAY 15, 1988 Summary Data By CEA Drop Weight Group

time seconds	Summary 232.60 AVERAGE	position 225.60 AVERAGE	data by 219.60 AVERAGE	weight 216.60 AVERAGE	group 213.60 AVERAGE	(% withd) 206.60 AVERAGE
3.96	0.25	0.24	0.18	0.23	0.21	0.22
4.01	0.24	0.24	0.18	0.22	0.21	0.22
4.06	0.26	0.23	0.18	0.22	0.21	0.22
4.11	0.25	0.23	0.18	0.21	0.21	0.22
4.16	0.26	0.21	0.18	0.22	0.21	0.22
4.21	0.25	0.23	0.19	0.22	0.21	0.22
4.26	0.25	0.20	0.18	0.22	0.21	0.22
4.31	0.26	0.22	0.19	0.22	0.21	0.21
4.36	0.25	0.22	0.18	0.22	0.21	0.22
4.41	0.24	0.22	0.18	0.21	0.21	0.22
4.46	0.25	0.20	0.18	0.21	0.21	0.21
4.51	0.25	0.22	0.18	0.21	0.21	0.21
4.56	0.25	0.21	0.19	0.21	0.21	0.20
4.61	0.24	0.22	0.18	0.22	0.21	0.21
4.66	0.24	0.21	0.18	0.22	0.20	0.21
4.71	0.25	0.22	0.18	0.22	0.21	0.21
4.76	0.24	0.20	0.18	0.20	0.21	0.21
4.81	0.24	0.21	0.18	0.22	0.21	0.22

time seconds	Summary 232.60 MINIMUM	position 225.60 MINIMUM	data by 219.60 MINIMUM	weight 216.60 MINIMUM	group 213.60 MINIMUM	(% withd) 206.60 MINIMUM
3.96	0.00	0.20	0.00	0.10	0.00	0.00
4.01	0.00	0.10	0.00	0.00	0.00	0.00
4.06	0.00	0.10	0.00	0.00	0.00	0.00
4.11	0.00	0.10	0.00	0.00	0.00	0.00
4.16	0.00	0.10	0.00	0.00	0.00	0.00
4.21	0.00	0.10	0.00	0.00	0.00	0.00
4.26	0.00	0.10	0.00	0.00	0.00	0.00
4.31	0.00	0.10	0.00	0.00	0.00	0.00
4.36	0.00	0.10	0.00	0.00	0.00	0.00
4.41	0.00	0.10	0.00	0.00	0.00	0.00
4.46	0.00	0.10	0.00	0.00	0.00	0.00
4.51	0.00	0.10	0.00	0.00	0.00	0.00
4.56	0.00	0.10	0.00	0.00	0.00	0.00
4.61	0.00	0.10	0.00	0.00	0.00	0.00
4.66	0.00	0.10	0.00	0.00	0.00	0.00
4.71	0.00	0.10	0.00	0.00	0.00	0.00
4.76	0.00	0.10	0.00	0.00	0.00	0.00
4.81	0.00	0.10	0.00	0.00	0.00	0.00

time seconds	Summary 232.60 MAXIMUM	position 225.60 MAXIMUM	data by 219.60 MAXIMUM	weight 216.60 MAXIMUM	group 213.60 MAXIMUM	(% withd) 206.60 MAXIMUM
3.96	0.50	0.40	0.30	0.30	0.30	0.40
4.01	0.50	0.40	0.30	0.30	0.30	0.40
4.06	0.50	0.40	0.30	0.30	0.30	0.40
4.11	0.50	0.40	0.30	0.30	0.30	0.40
4.16	0.50	0.30	0.30	0.30	0.30	0.40
4.21	0.50	0.40	0.30	0.30	0.30	0.40
4.26	0.50	0.30	0.30	0.30	0.30	0.40
4.31	0.50	0.30	0.30	0.30	0.30	0.30
4.36	0.50	0.30	0.30	0.30	0.30	0.40
4.41	0.50	0.30	0.30	0.30	0.30	0.40
4.46	0.50	0.30	0.30	0.30	0.30	0.30
4.51	0.50	0.30	0.30	0.30	0.30	0.30
4.56	0.50	0.30	0.30	0.30	0.30	0.30
4.61	0.50	0.30	0.30	0.30	0.30	0.30
4.66	0.50	0.30	0.30	0.30	0.30	0.30
4.71	0.50	0.30	0.30	0.30	0.30	0.30
4.76	0.50	0.30	0.30	0.30	0.30	0.30
4.81	0.50	0.30	0.30	0.30	0.30	0.40

ANO-2 CEA DROP TIME TEST DATA - MAY 18, 1988 Summary Data By CEA Drop Weight Group

WEIGHT (lbs) >>	Summary	position	data by	weight	group	(% withd)
raw	232.60	225.60	219.60	216.60	213.60	206.60
time// cea# >>>	AVERAGE	AVERAGE	AVERAGE	AVERAGE	AVERAGE	AVERAGES
VVVVV						
time						
to						
90%						
inserted						
>>>>>>>	2.74	2.79	2.84	2.89	2.89	2.98
time						
to						
75%						
inserted						
>>>>>>>	2.43	2.47	2.52	2.57	2.58	2.64
time						
to						
50%						
inserted						
>>>>>>>	1.88	1.88	1.93	1.98	1.98	2.03
time						
to						
25%						
inserted						
>>>>>>	1.23	1.28	1.27	1.29	1.29	1.34
time to						
1 %						
inserted						
>>>>>>	0.51	0.51	0.52	0.53	0.54	0.56
coil decay						
time						
>>>>>>	0.43	0.42	0.43	0.47	0.47	0.48

Summary	position	data by	weight	group	(% withd)
232.60	225.60	219.60	216.60	213.60	206.60
MINIMUM	MINIMUM	MINIMUM	MINIMUM	MINIMUM	MINIMUM
2.61	2.68	2.75	2.81	2.78	2.85
2.32	2.38	2.44	2.50	2.45	2.52
1.78	1.81	1.87	1.92	1.87	1.93
1.18	1.19	1.24	1.26	1.22	1.27
0.46	0.46	0.48	0.47	0.46	0.46
0.36	0.37	0.37	0.37	0.36	0.34

Summary	position	data by	weight	group	(% withd)
232.60	225.60	219.60	216.60	213.60	206.60
MAXIMUM	MAXIMUM	MAXIMUM	MAXIMUM	MAXIMUM	MAXIMUM
2.89	2.87	2.95	2.98	2.97	3.14
2.55	2.54	2.62	2.65	2.64	2.79
1.94	1.94	2.02	2.04	2.02	2.15
1.29	1.29	1.35	1.36	1.35	1.46
0.58	0.53	0.58	0.60	0.60	0.63
0.47	0.47	0.47	0.56	0.52	0.52