#### U. S. NUCLEAR REGULATORY COMMISSION

#### REGION III

Report No. 50-461/84-16(DPRP)

Docket No. 50-461

License No. CPPR-137

Licensee: Illinois Power Company 500 South 27th Street Decatur, IL 62525

Facility Name: Clinton Power Station, Unit 1

Meeting At: Clinton Site, Clinton, IL

Meeting Conducted: May 31, 1984

Report Prepared By: H. H. Livermore

Senior Resident Inspector

Projects Branch 1C

6/12/84 Date

#### Meeting Summary

Meeting on May 31, 1984 (Report No. 50-461/84-16(DPRP)) Subjects Discussed: A meeting was held with corporate officers and staff of the Illinois Power Company at the Clinton Plant Site near Clinton, Illinois. The purpose of the meeting was to discuss the status of construction and key elements of the improvement program.

#### DETAILS

#### 1. Meeting Attendees

#### Illinois Power Company (Principals)

W. G. Kelley, Chairman and President

W. C. Gerstner, Executive Vice President

D. P. Hall, Vice President, Quality Assurance, Engineering and Operations

H. E. Daniels, Project Manager

#### U. S. Nuclear Regulatory Commission

J. G. Keppler, Regional Administrator

R. C. Knop, Chief, Projects Section 1C

R. F. Warnick, Chief, Projects Branch 1

H. H. Livermore, Senior Resident Inspector

W. F. Christianson, Senior Resident Inspector

J. N. Grace, Director, QA Safeguards and Inspection

#### Meeting Details

A meeting was held in the Service Building at the Clinton Site near Clinton, Illinois, on May 31, 1984, to discuss Illinois Power Company's status of construction and the nuclear power program.

Mr. D. P. Hall of Illinois Power Company made a presentation of the Nuclear Power Program (see the attachment to this report). Mr. Hall stated that the tasks and goals for completion of construction, licensing and commercial operation of the Clinton Station remain unchanged. Construction is behind schedule; however, steady progress has been maintained and activities are gradually approaching the actual schedule.

Changes occurred in the Illinois Power nuclear organization, the most notable being replacement of the Project Manager and addition of a Director for Nuclear Planning, Programming and Scheduling.

The meeting came to an end at approximately 3:30 p.m. and was part of a series of meetings used by Illinois Power Company to report the steps taken to improve the management, construction, and inspection activities at the Clinton Nuclear facility. There was no date set for a future meeting.

Attachment: As stated

ILLINOIS POWER COMPANY

NUCLEAR POWER PROGRAM

MAY 31, 1984

# OUTLINE

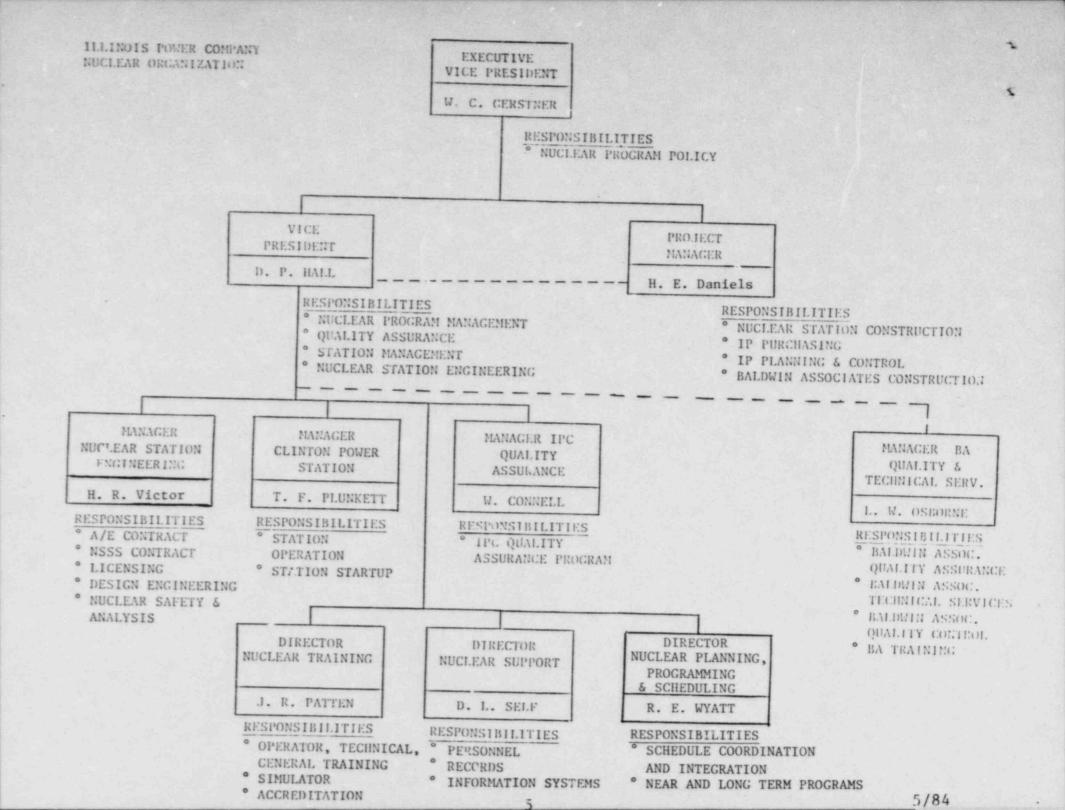
- 1. INTRODUCTION
  - ° ORGANIZATION
- 2. PROJECT STATUS
  - · COMMITMENTS
  - \* CURRENT
- 3. LICENSING
- 4. PLANT
  - \* PERSONNEL
  - \* PROCEDURES
- 5. ALLEGATIONS
- 6. OVERINSPECTION PROGRAM
- 7. RECORDS REVIEW PROGRAM
- 8. 10CFR50.55(E) ISSUES

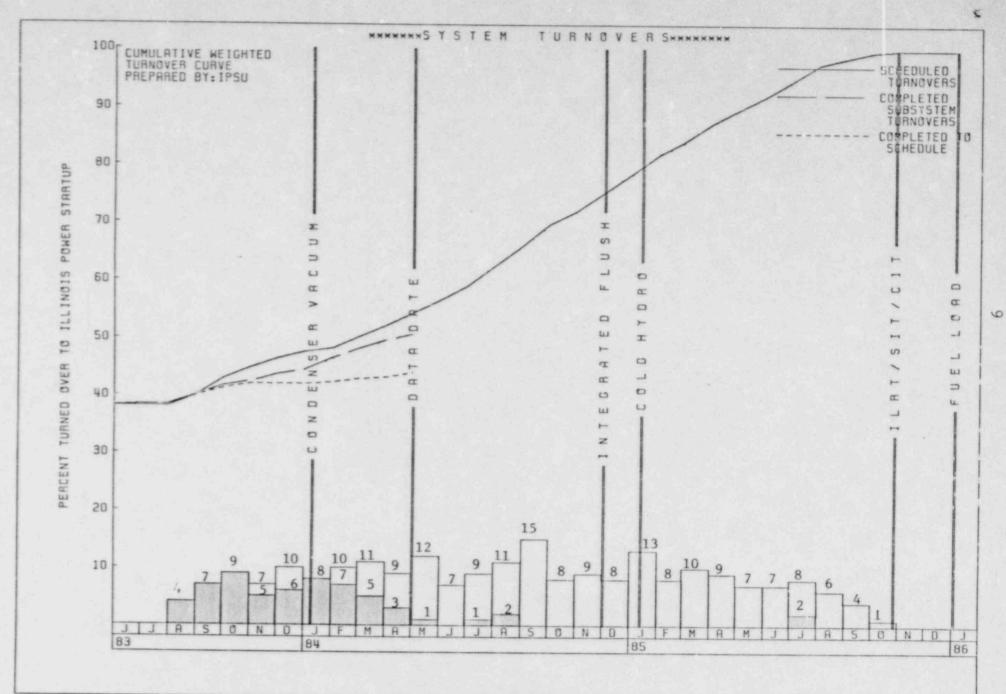
## GOALS

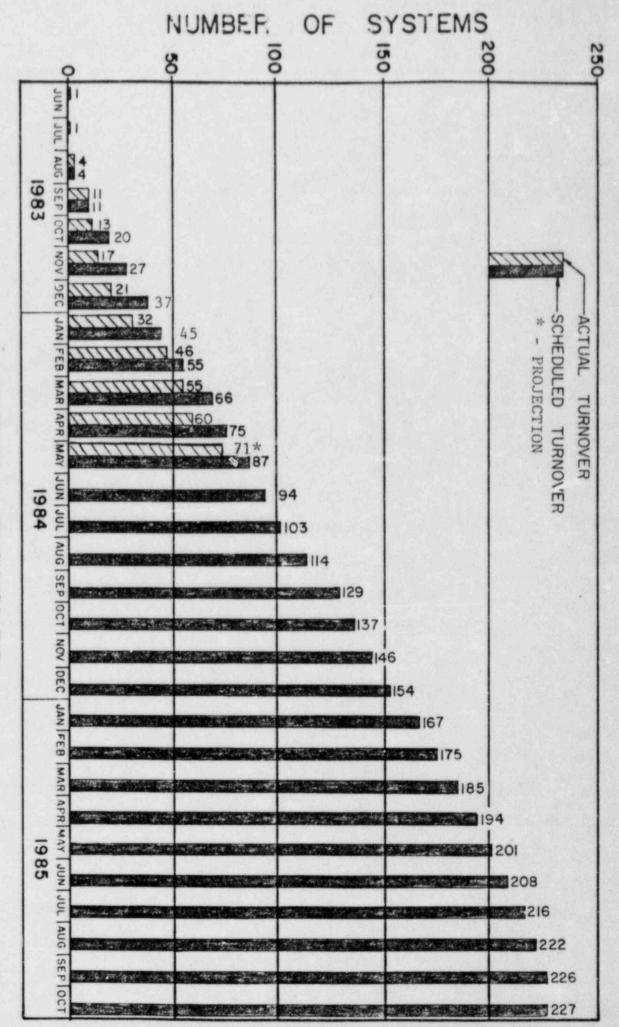
- COMPLETE THE CLINTON POWER STATION AT THE EARLIEST POSSIBLE TIME.
- COMPLETE THE NUCLEAR REGULATORY LICENSING PROCESS IN THE APPROPRIATE SEQUENCE WITH CONSTRUCTION COMPLETION.
- ENTER CLINTON POWER STATION INTO COMMERCIAL OPERATION AT THE EARLIEST POSSIBLE TIME.

## OBJECTIVES

- CONTINUE EFFORTS TO ENSURE THAT CLINTON POWER STATION IS COMPLETED WITH THE HIGHEST POSSIBLE ASSURANCE LEVEL OF QUALITY CONSTRUCTION.
- DEMONSTRATE IN DAILY ACTIVITIES THAT TOP LEVEL MANAGEMENT AND ALL LEVELS
  OF SUPERVISION SUPPORT FULLY A STRONG, EFFECTIVE QUALITY ASSURANCE
  PROGRAM WHICH WILL ENSURE QUALITY CONSTRUCTION, TESTING AND OPERATION.
- ENCOURAGE HIRING AND RETENTION OF HIGH QUALITY PERSONNEL IN ADEQUATE
   NUMBERS TO SUPPORT EXCELLENCE IN PLANT OPERATION AND MAINTENANCE.

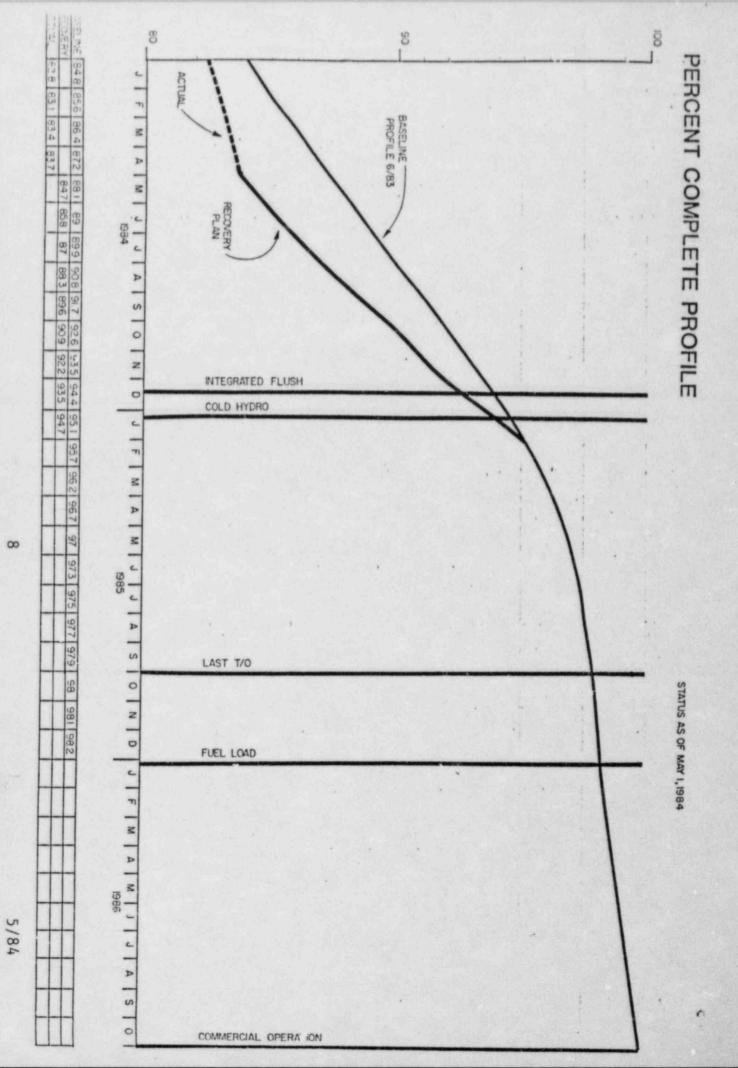




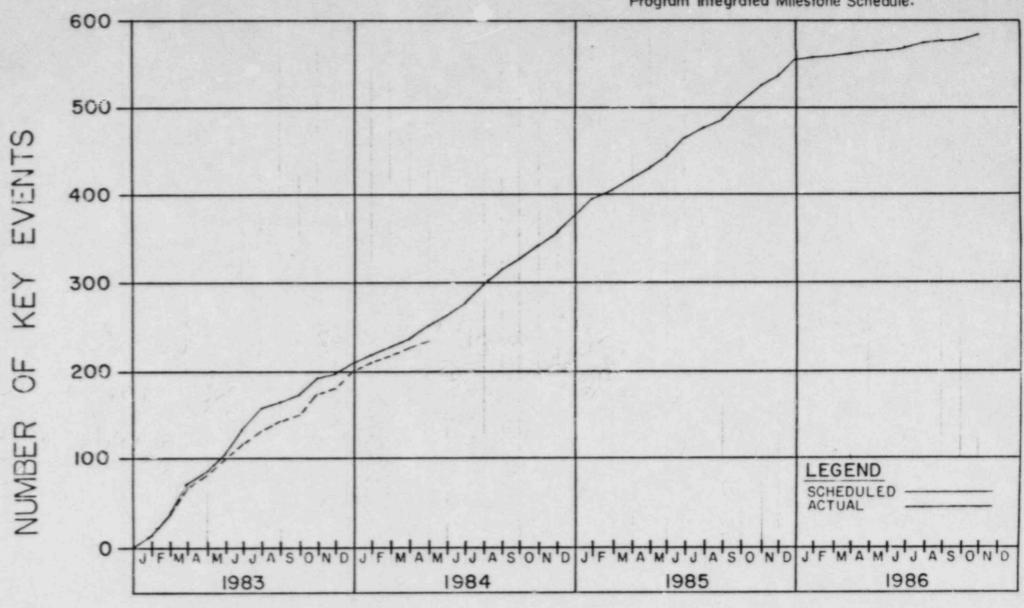


SYSTEM TURNOVER

5/84



NOTE: Key events taken from IPC Nuclear Power Program Integrated Milestone Schedule.



IPC NUCLEAR POWER PROGRAM KEY EVENTS

#### FUTURE MILESTONES

- 1. COMPLETE CONSTRUCTION OF ENGINEERED SAFETY SYSTEMS JULY 9, 1984.
- 2. COMPLETE CONSTRUCTION OF RADWASTE AND ASSOCIATED SYSTEMS AUGUST 6, 1984.
- 3. COMPLETE CONSTRUCTION OF FUEL POOL COOLING AND CLEANUP SYSTEMS OCTOBER 8, 1984.
- 4. COMPLETE CONSTRUCTION OF REACTOR RECIRCULATION AND REACTOR WATER CLEANUP SYSTEMS OCTOBER 23, 1984.
- 5. COMPLETE CONSTRUCTION OF REACTOR PLANT COMPONENT COOLING WATER SYSTEM NOVEMBER 26, 1984.
- 6. START INTEGRATED FLUSH DECEMBER 2, 1984.
- 7. START REACTOR COLD HYDRO PRESSURE TEST JANUARY 6, 1985
- 8. COMPLETE CONSTRUCTION OF CONTROL ROD DRIVE SYSTEM APRIL 3, 1985.
- 9. START INTEGRATED LEAK RATE TEST OCTOBER 27, 1985.
- START FUEL LOAD JANUARY 3, 1986.
- 11. START COMMERCIAL OPERATION NOVEMBER 1, 1986.

# STATUS OF CLINTON POWER STATION SAFETY EVALUATION REPORT

# LICENSING CONCERNS

DOCUMENT OR STATUS	OUTSTANDING ISSUES	CONFIRMATORY ISSUES
SER	20	64
SSER #1	16	38
SSER #2	9	31
UNDER NRC REVIEW	3	17
ITEMS REQUIRING IP INTERFACE WITH NRC	3	6
ITEMS CLOSED SINCE ISSUE OF SSER #2	3	9
ITEMS ADDED SINCE SSER #2		1
SER ISSUED 2/82 SSER #1 ISSUED 7/82 SSER #2 ISSUED 5/83		

# SER OUTSTANDING ISSUES UNDER NRC REVIEW

- # 5 POSTULATED PIPING FAILURES SUBMITTED 3/83
- # 15 CONTROL SYSTEMS FAILURES SUBMITTED 12/82
- # 17 ORGANIZATION AND STAFFING BEING REVIEWED BY SITE RESIDENT INSPECTOR SUBMITTED 3/84

# SER OUTSTANDING ISSUES REQUIRING IP INTERFACE

- #7 ENVIRONMENTAL, SEISMIC, AND PUMP & VALVE QUALIFICATION PROGRAM.

  NRC AUDITS SCHEDULED FOR 8/84 (ENVIRONMENTAL), AND 7/85 (SEISMIC AND PUMP AND VALVE).
- #9 POOL DYNAMIC LOADS.

  RESPONSE PRESENTED TO NRC ON 4/18/84. 6 ADDITIONAL QUESTIONS WERE POSED BY NRC. IP TO PROVIDE ANSWERS BY 6/30/84.
- #18 EMERGENCY PLAN.

  PRESENTATION GIVEN TO NRC ON 4/03/84. IP TO SUBMIT EMERGENCY PLAN REVISION TO NRC 8/84.

# ASLB STATUS

# I. PRAIRIE ALLIANCE CONTENTIONS

- EMERGENCY PLAN
- MANAGEMENT AND TECHNICAL COMPETENCE
- CONTROL ROOM DESIGN

CONTENTIONS IV (ECCS ADEQUACY) AND CONTENTION V (LOW LEVEL RADIATION) WERE WITHDRAWN BY PRAIRIE ALLIANCE - APPROVED BY THE BOARD.

#### II. DOCUMENT DISCOVERY

- STATE OF ILLINOIS (ATTORNEY GENERAL)
- APPROXIMATELY 31,500 PAGES OF DOCUMENTATION PRODUCED TO DATE WITH AN ESTIMATED 2,000 MORE TO BE PRODUCED.

# III. START OF HEARINGS

- HEARING DATE TO BE SET AFTER FURTHER NEGOTIATIONS ON CONTENTIONS IS COMPLETED.

#### EMERGENCY PLANNING

#### ORGANIZATION

- CPS EMERGENCY PREPAREDNESS PROGRAM EXPANDED IN 1984
- EMERGENCY PREPAREDNESS STAFFED
- " ILLINOIS EMERGENCY SERVICES AND DISASTER AGENCY

#### PLANS AND PROCEDURES

- · CPS EMERGENCY PLAN, REVISION 3 IN PREPARATION
- EMERGENCY PLAN IMPLEMENTING PROCEDURES
- ONE EMERGENCY OPERATING PROCEDURE LEFT TO COMPLETE
- HEADQUARTERS NUCLEAR EMERGENCY RESPONSE PLAN
- EMERGENCY RESPONSE CAPABILITY IMPLEMENTATION PLAN DEVELOPED
- CONCEPTUAL DOCUMENT "NUCLEAR EMERGENCY RESPONSE MANUAL"

### EMERGENCY PLANNING (CONT'D)

## FACILITIES AND EQUIPMENT

- EMERGENCY OPERATIONS FACILITY
- \* EMERGENCY RESPONSE FACILITIES
- SAFETY PARAMETER DISPLAY SYSTEM
- PROMPT NOTIFICATION SYSTEM SIRENS
- POST ACCIDENT SAMPLING SYSTEM

#### PROGRAM ACTIVITIES

- ° EVACUATION TIME STUDY
- SOUND PRESSURE TESTING SIRENS
- ° INPO
- ° NRC REVIEW

# NUCLEAR ORGANIZATION PERSONNEL STATUS MAY 24, 1984

	AUTHORIZED (1984)	PRESENT
VICE PRESIDENT STAFF	2	2
PLANT STAFF	375	309
QUALITY ASSURANCE	93	72
NUCLEAR STATION ENGINEERING	119	101
NUCLEAR SUPPORT	46	31
NUCLEAR TRAINING	26	20
NUCLEAR PLANNING, PROGRAMMING & SCHEDULING	1	2
STARTUP	99	71
PROJECT MANAGEMENT	125	118
ENGINEER TRAINEES	29	27
TEMPORARY POSITIONS	_59	_53
TOTAL	974	806
RICHLAND COMMUNITY COLLEGE AND TEMPORARY SUMMER HIRE	21	19
CONTRACTOR PERSONNEL	DD F	CENT
STARTUP		SENT
		18
NUCLEAR STATION ENGINEERI		59
QUALITY ASSURANCE	2	06
NUCLEAR SUPPORT		14
NUCLEAR TRAINING		3
NUCLEAR PLANNING, PROGRAM SCHEDULING	MING &	2
TOTAL	4	02

# CLINTON POWER STATION STARTUP STAFFING (MAY 24, 1984)

IP PERSONNEL	
SUPERVISORY	8
STARTUP ENGINEERS	23
ADMINISTRATIVE	40
SUBTOTAL	71
CPS PERSONNEL ON LOAN TO STARTUP	
STARTUP ENGINEERS	10
ADMINISTRATIVE	1
SUBTOTAL	. 11
CONTRACTOR PERSONNEL	
TEST ENGINEERS	51
C&I TECHNICIANS	37
TECHNICAL SPECIALISTS .	19
SCHEDULERS	11
SUBTOTAL	118
TOTAL	200

CLINTON POWER STATION
PERMANENT PLANT STAFFING (MAY 24, 1984)

	AUTHORIZED (1984)	ACTUAL
MANAGER'S STAFF	6	6
OPERATIONS	76	69
MAINTENANCE	116	100
TECHNICAL STAFF	33	19
STORES	12	12
RAD PROTECTION	44	23
CHEMISTRY	19	16
PLANT SERVICES	43	38
RAD WASTE	19	14
COMPLIANCE & CONFIGURATION	13	12
	375	309

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EXPECTED STAFFING PEAK: 390

# OPERATOR TRAINING

REQUIREMENT	APPLICATION	
ANS 3.1/1981	NRC	CLINTON
FUNDAMENTALS	FUNDAMENTALS (SER)	5 - 15 WEEKS (CLASSROOM)
10 STARTUPS	10 STARTUPS (SER)	1 WEEK - UNIVERSITY OF OF ILLINOIS (10 STARTUPS)
PLANT SYSTEMS NSSS/BOP	PLANT SYSTEMS (SER) NSSS/BOP	9 WEEKS (CLASSROOM)
PLANT OBSERVATION	OBSERVATION (SER)	4 WEEKS - DRESDEN OR LASALLE
OPERATING PRACTICES		ON-THE-JOB TRAINING
CONTROL ROOM OPERATING EXPERIENCE (PREOP TESTING)		SHIFT WORK ESTABLISHED 1/1/81
SIMULATOR TRAINING	BWR OPERATOR TRAINING (SER)	12 WEEKS
PRACTICAL WORK ASSIGNMENTS		YES
PRE-LICENSE TRAINING & EXAMINATION		20 WEEKS
SUPERVISORY SKILLS (SRO)		1 WEEK
	MITIGATING CORE DAMAGE (SER)	80 HOURS

# ADDITIONAL

# SHIFT SUPERVISOR EXPERIENCE

#### INDUSTRY

ONE SRO ON EACH SHIFT WITH AT LEAST 6 MONTHS HOT EXPERIENCE

MEET ANS-3.1/1981
NUCLEAR POWER PLANT
EXPERIENCE CRITERIA.
USE INDUSTRY WEIGHTING
FACTORS. THE
STANDARD REQUIRES
THAT SRO CANDIDATES
HAVE 2 YEARS OF
EXPERIENCE AND RO
CANDIDATES HAVE 1
YEAR OF EXPERIENCE.

#### NRC

ONE SRO ON EACH SHIFT WITH AT LEAST ONE YEAR HOT EXPERIENCE

ALL SROS SHOULD HAVE SUBSTANTIAL RO EXPERIENCE

#### CLINTON

ONE SRO ON EACH SHIFT WITH AT LEAST 6
MONTHS HOT (BWR)
EXPERIENCE
MEET ANS-3.1/1981
NUCLEAR POWER PLANT
EXPERIENCE CRITERIA.
USING INDUSTRY
WEIGHTING FACTORS.

OR

PROVIDE A QUALIFIED ADVISOR UNTIL STAFF MEETS SIX MONTH REQUIREMENT

ELIMINATE THE USE OF TECHNICAL ADVISORS COMMITTED TO HAVE AT LEAST ONE BWR EXPERIENCED INDIVIDUAL ON SHIFT FOR THE PERIOD OF INITIAL OPERATION

DURING PREOPERATIONAL TESTING,
BWR-EXPERIENCED
CONSULTANTS WILL
SERVE ON SHIFT WHILE
IP PERSONNEL GAIN
EXPERIENCE AT
OPERATING PLANTS.

THESE CONSULTANTS MAY BE RETAINED DURING PLANT OPERATION.

PROPOSED RULE STATES
THAT WITHIN 6 YEARS
THE RESPONSIBLE
PERSON ON EACH SHIFT
SHALL HOLD A B.S.
DEGREE (SECY-106)

BEGINNING AFTER
COMMERCIAL OPERATION
SHIFT SUPERVISORS
WILL COMPLETE THE
MEMPHIS STATE
UNIVERSITY B.S.
PROGRAM. BASED ON
THE BACKGROUND OF OUR
SUPERVISORS, THE
PROGRAM SHOULD BE
COMPLETED IN 1938.

#### SRO SIMULATOR CERTIFICATION

- 48 PEOPLE PRESENTLY CERTIFIED
- 8 PEOPLE AT THE SIMULATOR NOW
- 8 PEOPLE WILL START SIMULATOR TRAINING JULY, 1984

#### PREVIOUSLY LICENSED PERSONNEL

PLANT MANAGER	PWR	SRO
SUPV. PLANT OPERATIONS	BWR	SRO
ASST. SUPV. PLANT OPERATIONS	PWR	SRO
SHIFT SUPERVISOR .	BWR	SRO
SHIFT SUPERVISOR	BWR	RO
SUPV. RADWASTE	BWR	SRO
RESULTS SUPERVISOR	BWR	SRO
TRAINING INSTRUCTOR	BWR	RO
TRAINING INSTRUCTOR	BWR	RO

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# AC TO R S

#2 OPERATOR	NAVY TRAINED NUCLEAR OPERATORS	TRAINED FOSSIL OPERATOR	CPS CONTROL ROOM OPERATORS	CPS ASST. SHIFT SUPERVISORS	CPS SHIFT SUPERVISORS	
22.5	0	0	0	0	6.5	COMMERCIAL LICENSED EXPERIENCE (MONTHS)
18	22.8	0	22.8	25.2	21.5	NUCLEAR NAVY (MONTHS)
2	2	2	2	2	2	CLASSROOM TRAINING (MONTHS)
6	σ	6	6	6	σ	SIMULATOR (MONTHS)
0	0	0	0	4	6	PARTICIPATION AT A COMMERCIAL PLANT (MONTHS)
15.5	4.5	4.5	17.7	17.8	19	PARTICIPATION ON SITE DURING TESTING (MONTHS)
10	0	0	5.2	10.3	14.75	OTHER (MONTHS)
74	35.3	12.5	53.7	65.3	75.75	TOTAL (MONTHS)

# CPS SHIFT COMPOSITION

CLINTON POWER STATION
NORMAL SHIFT

1 SHIFT SUPERVISOR (SRO)
2 ASSISTANT SHIFT SUPERVISORS (RO)
3 CONTROL ROOM OPERATORS (RO)
2 NON-LICENSED OPERATORS
1 STA

TECHNICAL SPECIFICATION
MINIMUM

1 SHIFT SUPERVISOR
1 ASSISTANT SHIFT SUPERVISOR
2 CONTROL ROOM OPERATORS
2 NON-LICENSED OPERATORS
1 STA

# CPS SHIFT MANNING LEVELS

	PROJECTED	PRESENT
SHIFT SUPERVISORS	6	5
ASSISTANT SHIFT SUPERVISOR	12	11
CONTROL ROOM OPERATORS	20	15
UNIT ATTENDANTS	13	9
AUXILIARY OPERATORS	9	18
STA	22	0

# PLANT STAFF PROCEDURES

	PROCEDURES IDENTIFIED	PROCEDURES APPROVED	PROCEDURES IN REVIEW	PROCEDURES IN DRAFT	PROCEDURES NOT STARTED
MAINTENANCE	571	517	17	37	0
OPERATIONS	347	326	14	7	0
RADWASTE/CHEMISTRY	209	186	21	1	1
RADIATION PROTECTION	145	120	14	3	8
TECHNICAL	75	60	14	0	1
OTHERS	119	105	8	6	0
TOTAL	1466	1314	88	54	10

# CURRENT STATUS OF PROCEDURES TO SUPPORT PREOPERATIONAL, ACCEPTANCE AND STARTUP TESTING

	APPROVED	IN REVIEW	BEING WRITTEN	NOT STARTED	TOTAL
ATP	36	6	1	6	49
FTP	87	1	1	1	90
GTP	67	1	1	2	71
НТР	. 146	14	3	8	171
PTP	57	16	2	11	86
STP	18	5	1	12	36
VTP	4	0	0	0	4
XTP	77	11	2	24	114
TOTAL	492	54	11	64	621

ATP - ACCEPTANCE TEST PROCEDURE

FTP - FLUSH TEST PROCEDURE

GTP - GENERIC TEST PROCEDURE

HTP - HYDROSTATIC TEST PROCEDURE

PTP - PREOPERATIONAL TEST PROCEDURE

STP - STARTUP TEST PROCEDURE

VTP - VENDOR TEST PROCEDURE

XTP - SPECIAL TEST PROCEDURE

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## ALLEGATIONS

- ° MANAGEMENT EFFORTS
- ° ACTIVE EMPLOYEE TRAINING
- EMPLOYEE FEEDBACK PROGRAMS

## QUALITY REPORT (2/82)

- REPORT FORMS AND DROP BOXES IN WORK AREAS
- SYSTEM MANAGED BY EXECUTIVE VICE PRESIDENT
- FEEDBACK TO EMPLOYEE PROVIDED ON BULLETIN BOARDS OR IN A PERSONAL RESPONSE

## HOTLINE (11/83)

- ON-SITE TELEPHONE EXTENSION
- SYSTEM MANAGED BY VICE PRESIDENT AND MAINTAINED BY IPQA ORGANIZATION
- FEEDBACK TO EMPLOYEE PROVIDED ON BULLETIN BOARDS OR IN PERSONAL RESPONSE
- OVERALL NUMBER OF CALLS IS DECREASING, BUT NUMBER OF QUALITY-RELATED CALLS IS INCREASING

## SAFETEAM PROGRAM (6/84)

- TO BEGIN AT CPS IN JUNE, 1984
- UTILIZES EXIT INTERVIEWS AND SCHEDULED INTERVIEWS TO OBTAIN QUALITY CONCERNS
- SYSTEM TO BE MANAGED BY AN IP SENIOR VICE PRESIDENT INDEPENDENT OF CPS RESPONSIBILITIES

ILLINOIS POWER COMPANY

OVERINSPECTION PROGRAM

28 5/84

#### OVERINSPECTION PROGRAM

#### OBJECTIVES:

1. PROVE THAT THE STRUCTURES, SYSTEMS, AND COMPONENTS AT CLINTON POWER STATION ARE PROPERLY INSTALLED TO ASSURE SAFETY OF OPERATIONS.

#### SCOPE:

- 1. OVERINSPECTION PROGRAM INCLUDES SAMPLE OVERINSPECTION OF COMPLETED BALDWIN ASSOCIATES WORK BY:
  - BALDWIN ASSOCIATES FIELD VERIFICATION GROUP
  - ILLINOIS POWER OVERINSPECTION GROUP
- 2. OVERINSPECTION PROGRAM ADDRESSES INSTALLATIONS ASSOCIATED WITH SAFETY RELATED, AUGMENTED D, RADWASTE, AND FIRE PROTECTION SYSTEMS.

#### OVERINSPECTION PROGRAM

STAFFING:

# BALDWIN ASSOCIATES FIELD VERIFICATION

SUPERVISORY - 13

ADMIN/SUPPORT - 13

INSPECTORS - 108

TOTAL: 134 EXPECTED STAFFING PEAK: 263

#### ILLINOIS POWER OVERINSPECTION

ADMIN/SUPPORT - 9

INSPECTORS - 45

TOTAL: 63 EXPECTED STAFFING PEAK: 132

#### OVERINSPECTION PROGRAM

#### STATUS:

#### TURNOVER PACKAGES:

- ° 13 OF 165 TURNOVER PACKAGFS (TOPs) HAVE BEEN COMPLETED BY BA FV AND IP OI
- ° 39 TOPs PRESENTLY BEING INSPECTED BY BA FV
  - 9 OF THE TOPS ARE UNDER IP CONTROL (OLD WORK)
  - 30 OF THE TOPS HAVE NOT BEEN TURNED OVER TO IP (NEW WORK)
- ° 36 TOPs PRESENTLY BEING INSPECTED BY IP OI
  - 10 OF THE TOPS ARE UNDER IP CONTROL (OLD WORK)
  - 26 OF THE TOPS HAVE NOT BEEN TURNED OVER TO IP (NEW WORK)

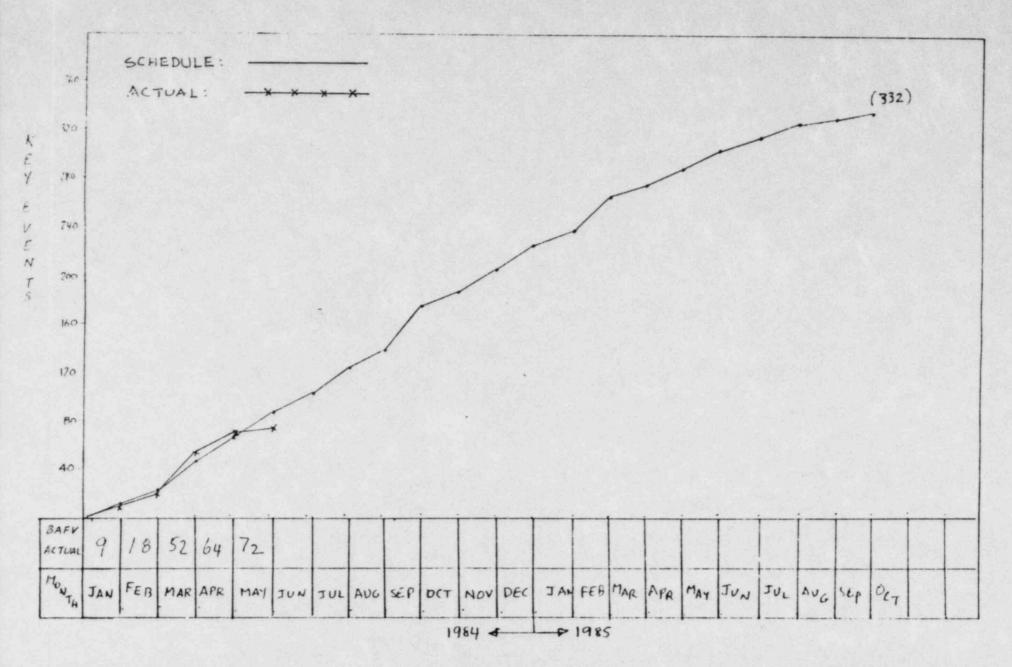
#### STRUCTURAL STEEL:

- \* 796 OF APPROXIMATELY 3,000 STRUCTURAL STEEL INSTALLATIONS HAVE BEEN INSPECTED BY BA FV.
- ° 439 OF APPROXIMATELY 3,000 STRUCTURAL STEEL INSTALLATIONS HAVE BEEN INSPECTED BY IP 01.

#### SUPPRESSION POOL

BA FV AND IP OI COMPLETED TO SUPPORT SUPPRESSION POOL FILL.

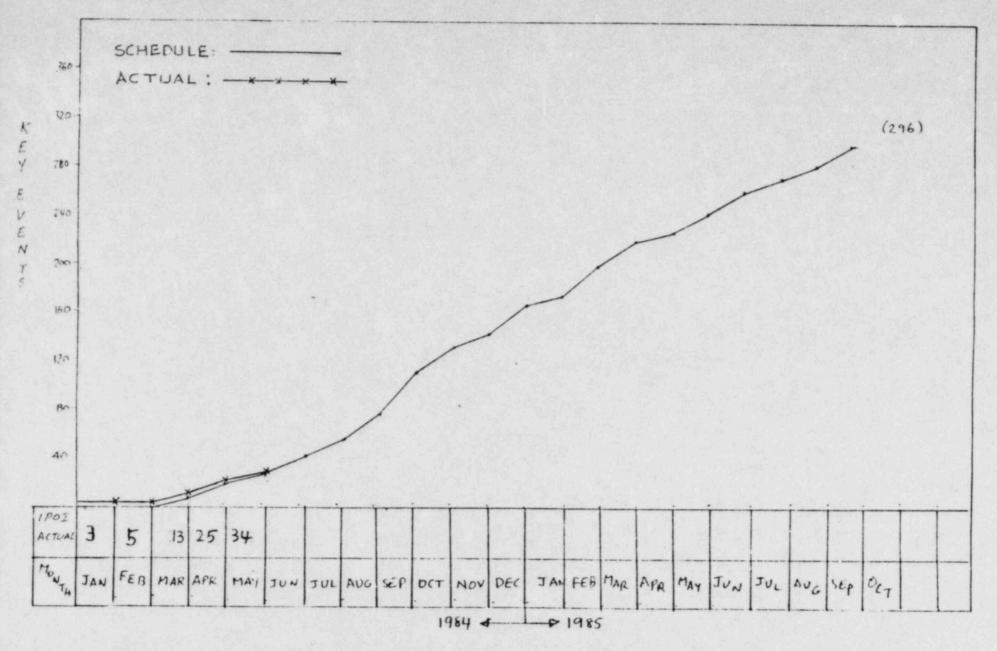
FV/OI INTEGRATED SCHEDULE KEY EVENT PROGRESS
BAFV

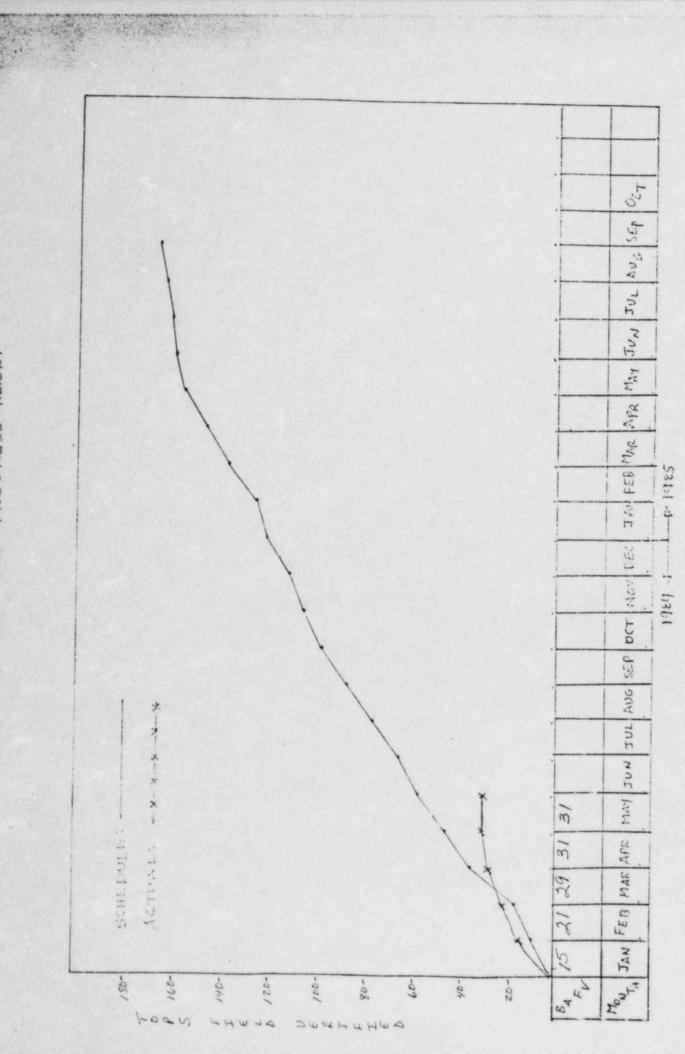


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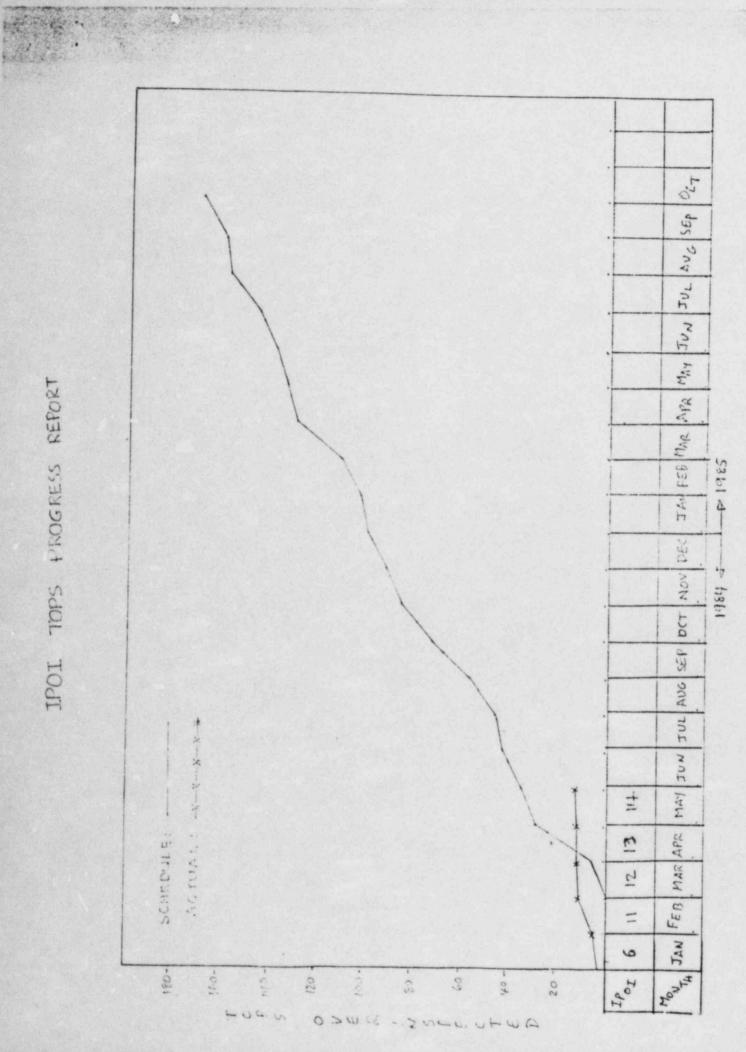
FV/OI INTEGRATED SCHEDULE KEY EVENT PROGRESS

1POI





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### RESULTS:

## BA FIELD VERIFICATION

- 94.5% OF TOTAL ATTRIBUTES INSPECTED HAVE BEEN ACCEPTABLE.
- 98% OF NON-CRITICAL ATTRIBUTES INSPECTED HAVE BEEN ACCEPTABLE.
- ° 93% OF CRITICAL ATTRIBUTES INSPECTED HAVE BEEN ACCEPTABLE.

# IP OVERINSPECTION

- ° 98.5% OF TOTAL ATTRIBUTES INSPECTED HAVE BEEN ACCEPTABLE.
- 99% OF NON-CRITICAL ATTRIBUTES INSPECTED HAVE BEEN ACCEPTABLE.
- ° 97.5% OF CRITICAL ATTRIBUTES INSPECTED HAVE BEEN ACCEPTABLE.

### DEFICIENCIES IDENTIFIED

- ° 3,070 NONCONFORMANCE REPORTS INITIATED AS A RESULT OF FIELD VERIFICATION AND OVERINSPECTION
- APPROXIMATELY 88% OF DEFICIENCIES IDENTIFIED RELATE TO WELDING AND STRUCTURAL STEEL
  - WELDING DEFICIENCIES CAN BE CATEGORIZED AS FOLLOWS:

## BA FIELD VERIFICATION

AUG D/FIRE PROTECTION PIPING WELDS (ANSI B31.1)	=	2.0%
PRESSURE BOUNDARY ASME PIPE WELDS AND NF SUPPORTS (ASME)	=	7.5%
MECH/ELEC SUPPORTS, EQUIPMENT WELDS AND STRUCTURAL WELDS (AWS D1.1)	-	90.5%

# IP OVERINSPECTION

AUG D/FIRE PROTECTION PIPING WELDS (ANSI B31.1)	-	0.0%
PRESSURE BOUNDARY ASME PIPE WELDS AND NF SUPPORTS (ASME)	=	3.4%*
MECH/ELEC SUPPORTS, EQUIPMENT WELDS AND STRUCTURAL WELDS (AWS D1.1)	=	96.6%

<sup>\*</sup>ZERO (0) ASME PIPE WELDS HAVE BEEN REJECTED

### WELDING DEFICIENCY TYPES

- ARC STRIKES, WRONG SIZE PROFILE, INCOMPLETE FUSION, WELD LENGTH
- STRUCTURAL STREE DEFICIENCY TYPES
  - NOT INSTALLED PER DESIGN (CLIP ANGLE SIZE, COPE CUTS, ETC)
  - BOLTS NOT PER DESIGN (MISSING WASHERS, IMPROPER ASSEMBLY, TORQUING)
  - TRACEABILITY (NUT IDENTIFICATION)
  - PHYSICAL DAMACE

### RESOLUTIONS

## WELDING DEFICIENCIES

S&L HAS ISSUED ENGINEERING CHANGE NOTICES THAT PROVIDE
BETTER DEFINED ACCEPT/REJECT CRITERIA FOR WELDS

# STRUCTURAL STEEL DEFICIENCIES

- SGL HAS PROVIDED ADDITIONAL TOLFRANCES FOR DIMENSIONS FOR ATTACHMENTS TO STRUCTURAL STEEL.
- SATISFACTORY COMPLETION OF STRUCTURAL FASTENER SAMPLING HAS DELETED THE NECESSITY FOR VERIFYING TYPE A-325 NUT MATERIAL

### CONCLUSIONS:

- \* FIELD VERIFICATION AND OVERINSPECTION RESULTS INDICATE MECHANICAL AND ELECTRICAL SYSTEMS ARE IN COMPLIANCE WITH DESIGN.
- FIELD VERIFICATION AND OVERINSPECTION RESULTS INDICATE SEVERAL QUESTIONS RELATING TO STRUCTURAL STEEL MUST BE RESOLVED.
  - REVIEW OF CHECKLIST CRITERIA BY DESIGNER
  - SPECIFIC PROBLEM RESOLUTION
  - MOST PROBLEMS ARE WITH VENDOR WORK

### PROBLEM AREAS:

- DEFINITION OF SCOPE FOR AREA TURNOVER
- RATE OF FIELD VERIFICATION AND OVERINSPECTION DEPENDENT ON CONSTRUCTION RATE

### PROGRAM CHANGES

- SAMPLE EVALUATION BY ATTRIBUTE
- CREDIT FOR 100% INSPECTION BY A SINGLE GROUP
- CREDIT FOR OTHER INSPECTION ACTIVITIES
  - RACEWAY REVERIFICATION
  - FIRE PROTECTION VS LOCFR50 APP R REVIEW
  - STOP WORK INSPECTIONS
  - 10CFR50.55(e) INSPECTIONS
- STAINING CHANGES
- ACCELERATE HVAC INSPECTIONS BY INSPECTING DUCT WELDS
- EXAMINATION OF NEED TO INSPECT NEW WORK

ILLINGIS POWER COMPANY

RECORD VERIFICATION PROGRAM

# RECORD VERIFICATION PROGRAM

### OBJECTIVES:

- THE OBJECTIVES OF THIS ILLINOIS POWER COMPANY PROGRAM IS TO VERIFY THE ACCEPTABILITY OF QA RECORDS APPLICABLE TO CLINTON POWER STATION

### SCOPE:

- 1. RECORD VERIFICATION INCLUDES REVIEWS OF QA RECORDS FOR ACCEPTABILITY BY THE BALDWIN ASSOCIATES DOCUMENT REVIEW AND ILLINOIS POWER RECORDS REVIEW GROUPS
- 2. RECORDS VERIFICATION INCLUDES REVIEWS OF ALL SAFETY-RELATED, FIRE PROTECTION, AND AUGMENTED D SYSTEM QA RECORDS

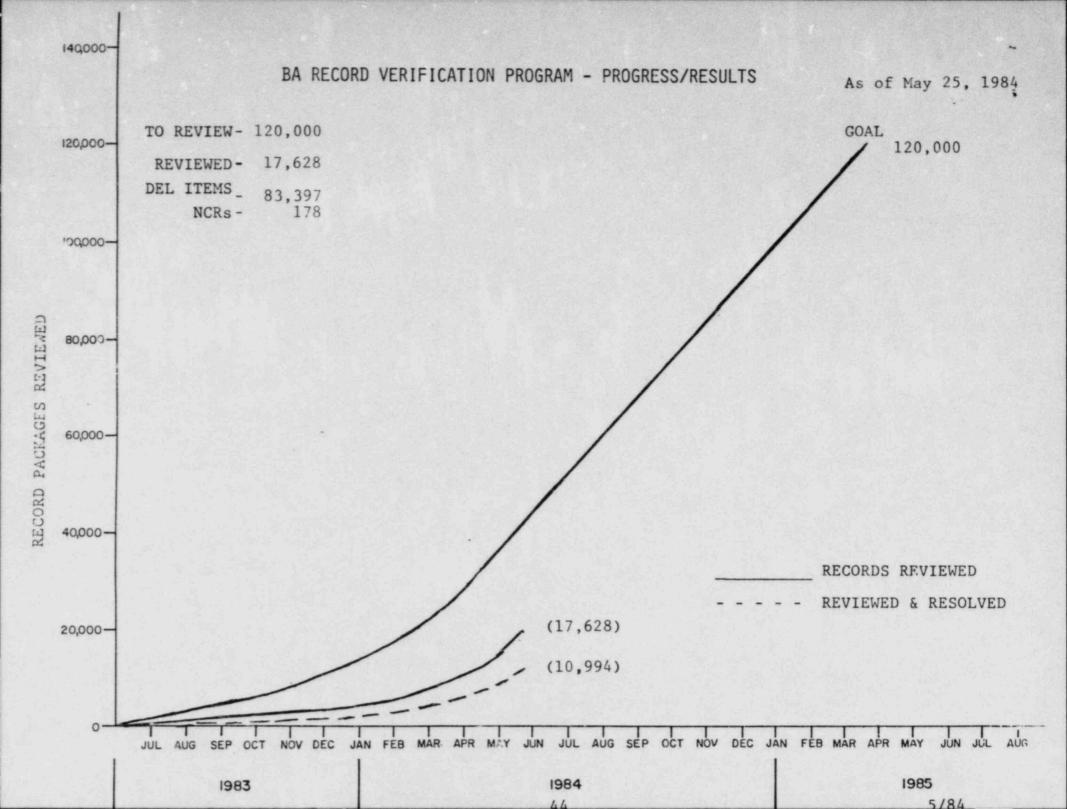
#### APPROACH:

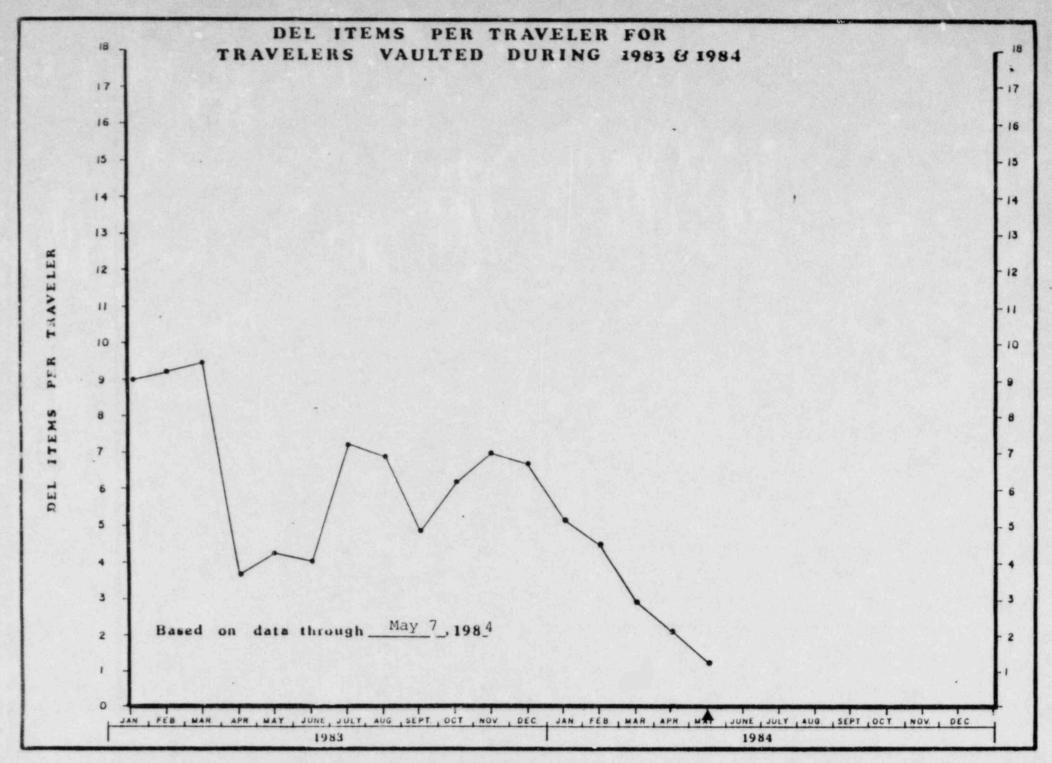
- 1. BALDWIN ASSOCIATES DOCUMENT REVIEW GROUP PERFORMS 100% REVIEW OF QA RECORDS WHICH IS CONDUCTED IN TWO PHASES.
- 2. ILLINOIS POWER PERFORMS APPROXIMATELY 20% REVIEW OF QA RECORDS PROVIDED BY BALDWIN ASSOCIATES AFTER DOCUMENT REVIEW

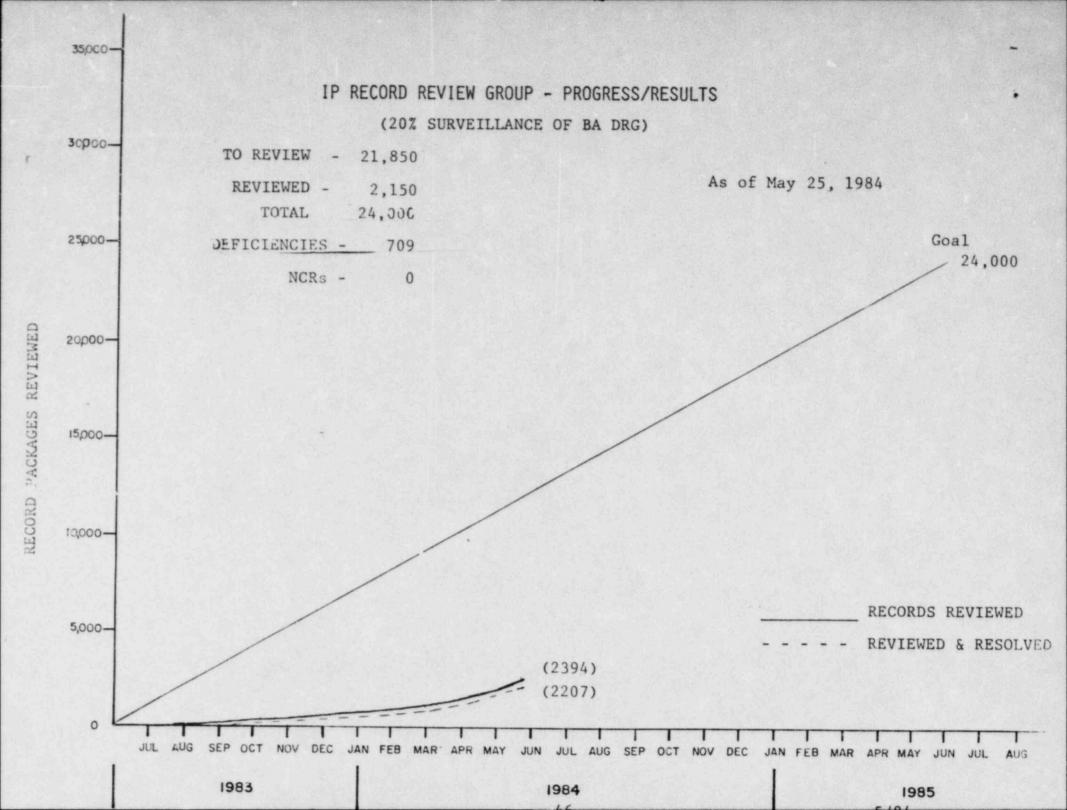
# RECORU VERIFICATION PROGRAM

# STAFFING:

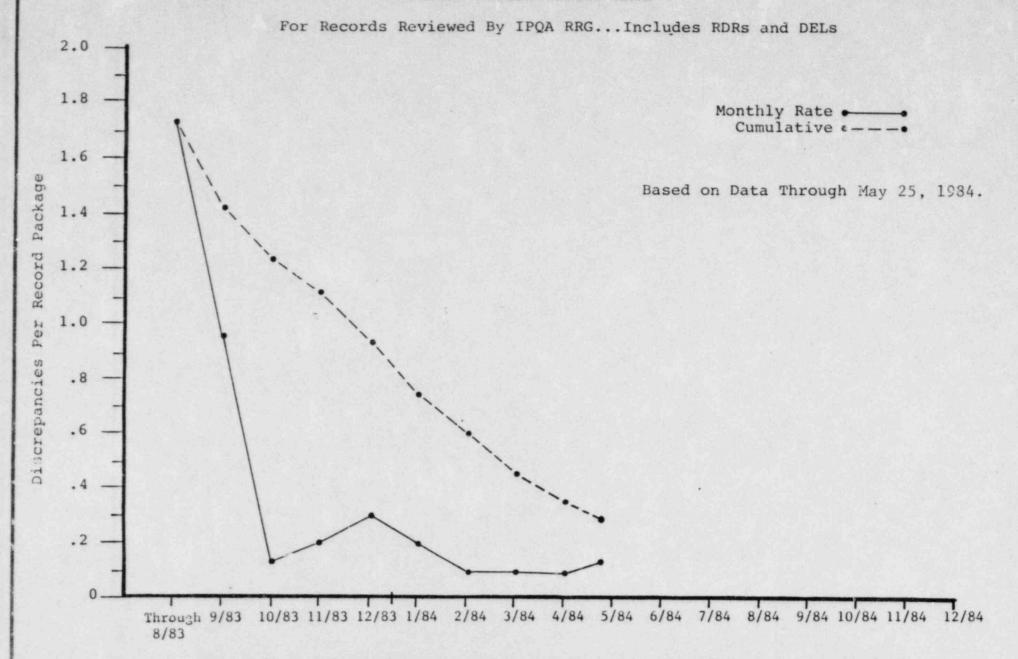
BALDWIN	ASSOCIATES	DOCUMENT	REVIEW	GROUP		135
	EXPECTED	PEAK			-	260
ILLINOIS	POWER RECO	ORD REVIEW	GROUP			15
	EXPECTED	PEAK				55







## RECORD REVIEW REJECT RATE



### RECORD VERIFICATION PROGRAM

- THE APPROXIMATELY 83,400 DEL LINE ITEMS IDENTIFIED BY BALDWIN ASSOCIATES DOCUMENT REVIEW GROUP HAVE RESULTED IN 218 NCRs.
  - PROBLEMS IDENTIFIED ON THESE NCRs WERE:

PROBLEM TYPE	NO. OF NCRs
INCORRECT HEAT TREATMENT	48
MISSING DOCUMENTATION	27
INCORRECT PROCEDURE	18
PROCEDURE VIOLATIONS	10
CONFIGURATION	5
MATERIAL TRACEABILITY	36
MATERIAL OUT OF SPECIFICATION	21
ASME NA-3700 VENDOR PROBLEM	21
BYPASSED HOLD POINT	9
MISCELLANEOUS	23
	· 218

- \* APPROXIMATELY 0.25% of DEL LINE ITEMS HAVE RESULTED IN NCRs.
- ° SIGNIFICANT ITEMS IDENTIFIED ARE:
  - LA BARGE MATERIALS
  - ASME FLANGE MATERIAL (55(e) 84-11)
  - PIPE SUBSTITUTIONS (55(e) 84-05)
  - PENETRATION HEAD FITTINGS (55(e) 84-09)

## RECORDS VERIFICATION PROGRAM

- AS OF 5/16/84, ILLINOIS POWER RECORDS REVIEW GROUP (RRG)
  IDENTIFIED 676 RECORD DEFICIENCIES.
  - THESE DEFICIENCIES RESULTED FROM IP RRG REVIEWING APPROXIMATELY 1,030,000 ATTRIBUTES.
- MAJORITY OF DEFICIENCIES HAVE BEEN IN THE FOLLOWING AREAS:
  - IMPROPER CORRECTIONS
  - MISSING DOCUMENTS
  - TRACEABILITY
  - INCORRECT PROCEDURE REVISION REFERENCED
- NO NCRs HAVE RESULTED FROM THE IP REVIEWS

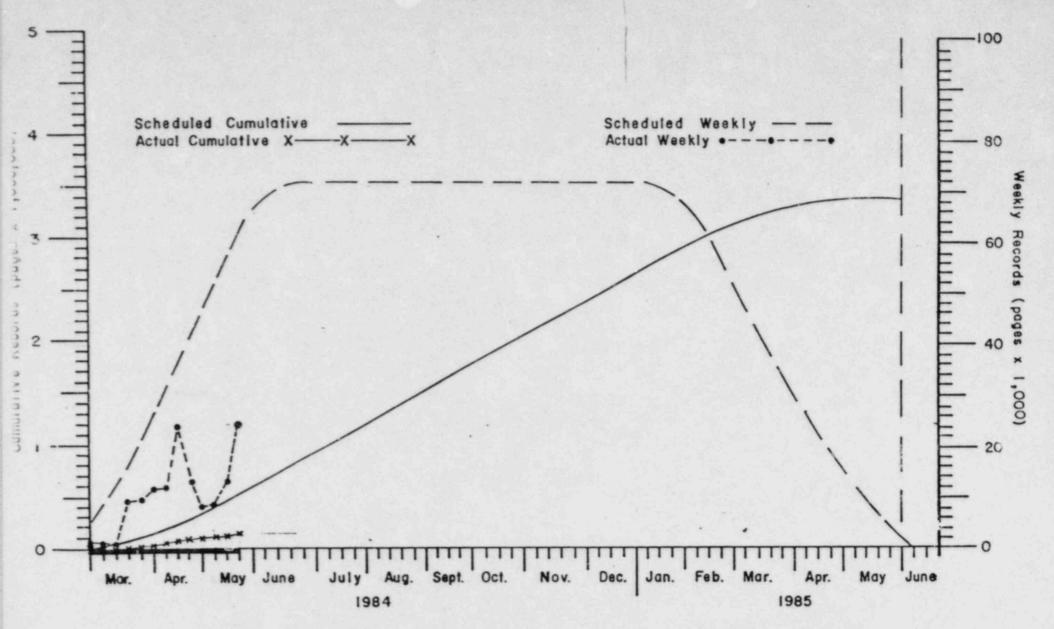
### RECORDS VERIFICATION PROGRAM

# USEABILITY DISCREPANCIES

- TYPES OF DEFICIENCIES:
  - LINE OUTS
  - WHITE OUTS
  - CORRECTIVE TAPE
  - ILLEGIBILITY
- USEABILITY DISCREPANCIES HAVE BEEN IDENTIFIED ON APPROXIMATELY 14,500 RECORDS
  - THIS REPRESENTS 1.8% OF ALL RECORDS REVIEWED
- OF THESE 14,500 RECORDS WITH USEABILITY DISCREPANCIES, APPROXIMATELY 12,000 HAVE BEEN CLOSED BY GENERIC RESOLUTION
- NO HARDWARE NONCONFORMANCES HAVE RESULTED FROM USEABILITY DISCREPANCIES
- ACTIONS TAKEN FOR USEABILITY DEFICIENCIES
  - INCLUDED ON DOCUMENT REVIEW CHECKLISTS FOR BOTH BA-DRG (100%) AND IP-RRG (20%).
  - TREND ANALYSIS BEING PERFORMED FOR ALL DOCUMENT DISCREPANCIES. NO ADVERSE TRENDS IDENTIFIED TO DATE.
  - VAULT PROTECTION MEASURES INSTITUTED WHICH INCLUDE CONTROLLED ACCESS, NO PENS, AND CONTROLLED REVIEW.
  - PROCEDURE CHANGES IMPLEMENTED TO CONTROL METHODS OF DOCUMENT CHANGES; WITH USE OF WHITE OUT PROHIBITED WITHIN IP AND BA.
  - INSTITUTED CORRECTIVE ACTION FOR GENERAL ELECTRIC FDDRs.

### RECORDS TURNOVER

Weekly Records Transmittals To IPC\*
Week Ending May 25, 1984



\*Total expected does not include S&L microfilm (1,817,000)

ILLINOIS POWER COMPANY

10CFR50.55(e) DEFICIENCIES

# 10CFR50.55(E) DEFICIENCIES

- 55-82-09: ERRORS IN SARGENT & LUNDY CALCULATIONS FOR SMALL BORE, INSTRUMENTATION, AND CONDUIT SUPPORT
  - REVIEWS OF SARGENT & LUNDY DESIGNS THAT USED SIMPLIFIED PROCEDURES IS NOW COMPLETE
    - \* IDENTIFIED AREAS IN PROCEDURES THAT NEED IMPROVEMENT OR CLARIFICATION
    - \* RESULTED IN ONE (1) SUPPORT CHANGE
  - SMALL BORE PIPE SUPPORT REVISIONS ARE REQUIRED IN TWENTY-FIVE (25) ASME PIPING SUBSYSTEMS
  - SARGENT & LUNDY QA AND ILLINOIS POWER QA HAVE EVALUATED S&L'S CORRECTIVE ACTION AS ADEQUATE
  - SAFETY OF OPERATION OF CPS WOULD NOT HAVE BEEN AFFECTED HAD THE ERRORS GONE UNCORRECTED

# 10CFR50.55(E) DEFICIENCIES

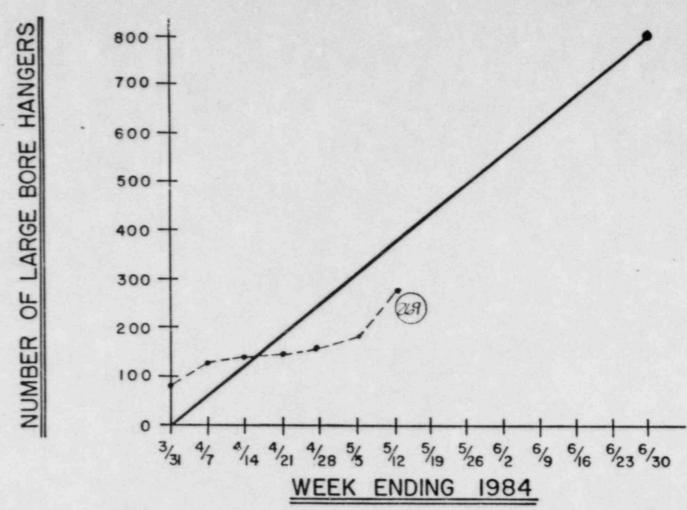
55-82-12: BINDING OF SWAY STRUT/SNUBBER PIPING COMPONENT SUPPORTS

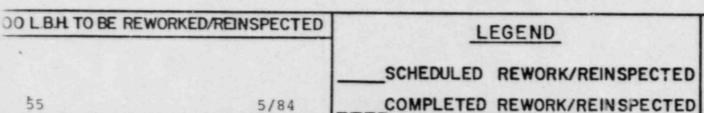
- FIELD INSPECTION OF INSTALLED SWAY STRUTS AND SNUBBER SUPPORTS IS NOW COMPLETE AND RESULTS HAVE BEEN EVALUATED
- 800 LARGE BORE SAFETY-RELATED SUPPORTS WILL REQUIRE REWORK
  TO PROVIDE SUFFICIENT CLEARANCES FOR THERMAL MOVEMENT OF
  PIPE
- 43 SMALL BORE SAFETY-RELATED SUPPORTS WILL REQUIRE RE-WORK TO PROVIDE SUFFICIENT CLEARANCES FOR THERMAL MOVEMENT OF PIPE
- APPROXIMATELY 50% OF HANGERS REQUIRE ONLY MINOR
  ADJUSTMENT; REMAINDER REQUIRE HARDWARE REPLACEMENT OR
  REWORK
- CONSTRUCTION SCHEDULES TO CORRECT SUPPORTS HAVE BEEN DEVELOPED, AND PROJECT COMPLETION BY SEPTEMBER 1, 1984.

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HANGERS REMAINING - 531
HANGERS COMPLETED - 269

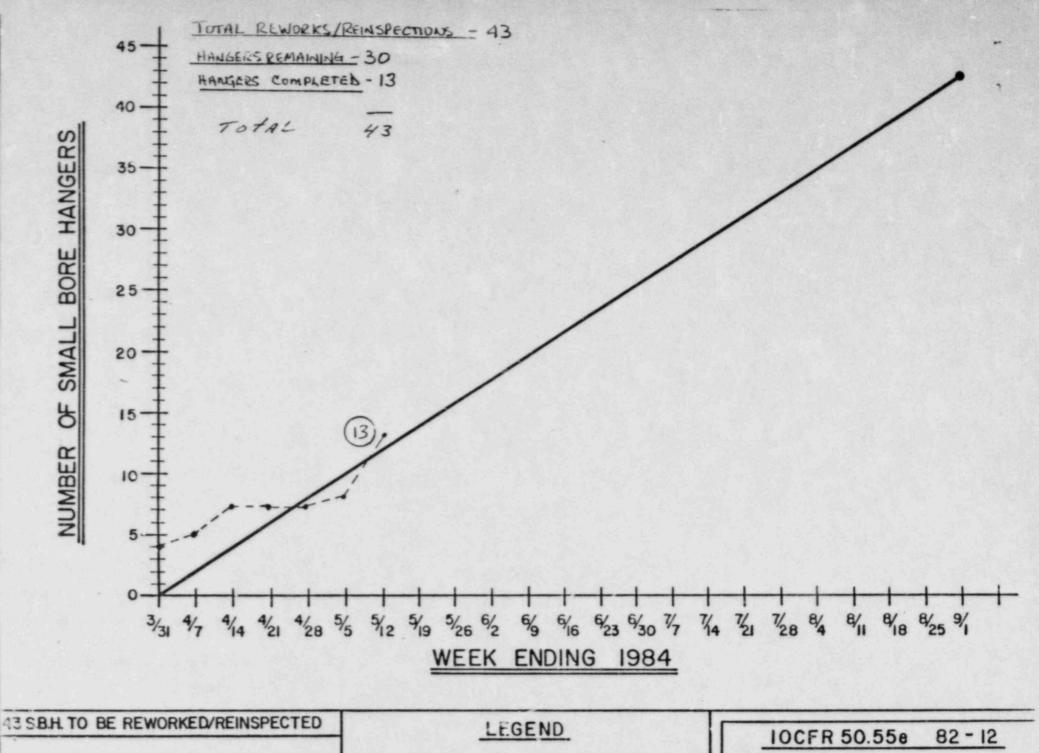
TOTAL REVIORKS/REWSPECTIONS - 800





IOCFR 50.55e 82 - 12

BASIC ENGINEERS
SWAY STRUT/SNUBBER
BINDING



43 SB.H. TO BE REWORKED/REINSPECTED

LEGEND

SCHEDULED REWORK/REINSPECTED

56

5/84

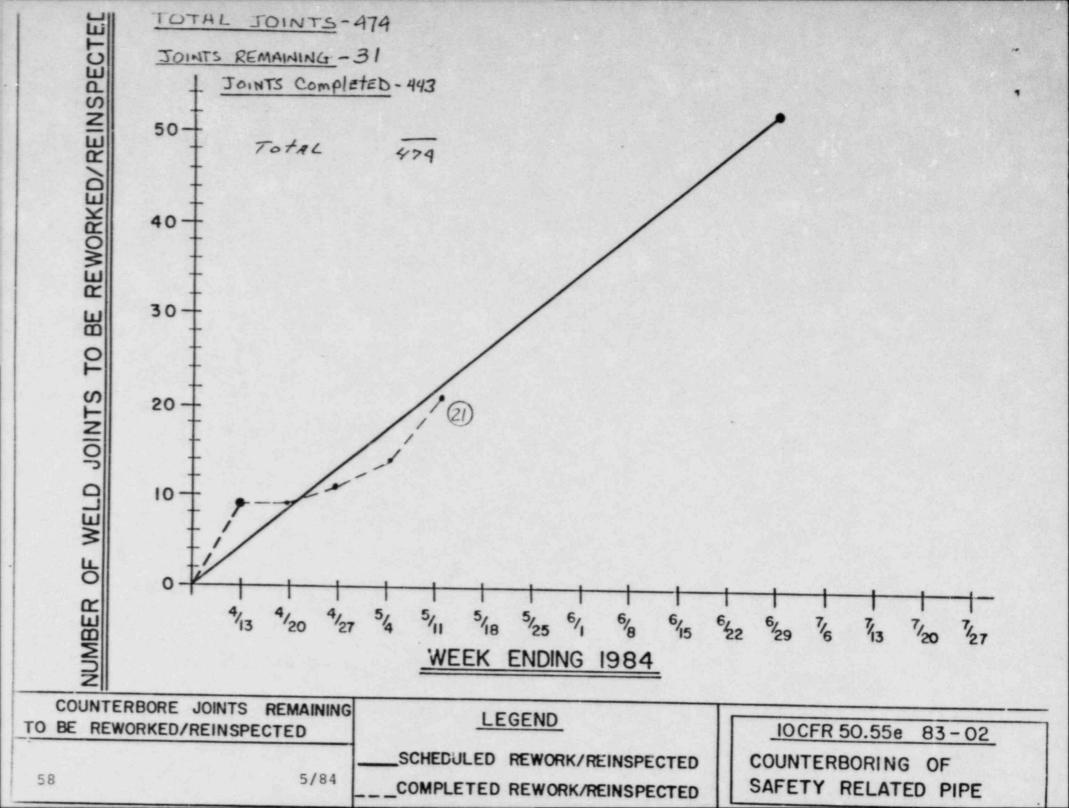
COMPLETED REWORK/REINSPECTED

SWAY STRUT/SNUBBER

### 10CFR50.55(e) DEFICIENCIES

### 55-83-02: INSPECTION OF COUNTERBORE OF ASME PIPING

- FIELD UT EXAMINATION AND DOCUMENTATION REVIEWS ARE NOW COMPLETE
- APPROXIMATELY 474 ASME PIPING WELDS CONTAIN SUSPECT COUNTERBORES AND MAY REQUIRE REWORK
- NONCONFORMANCE REPORTS HAVE BEEN INITIATED ON EACH TO OBTAIN AN ENGINEERING DISPOSITION OF THE WELD
- CONSTRUCTION SCHEDULES HAVE BEEN DEVELOPED TO CORRECT COUNTERBORES AND WELDS THAT PROJECT COMPLETION BY JULY 1, 1984

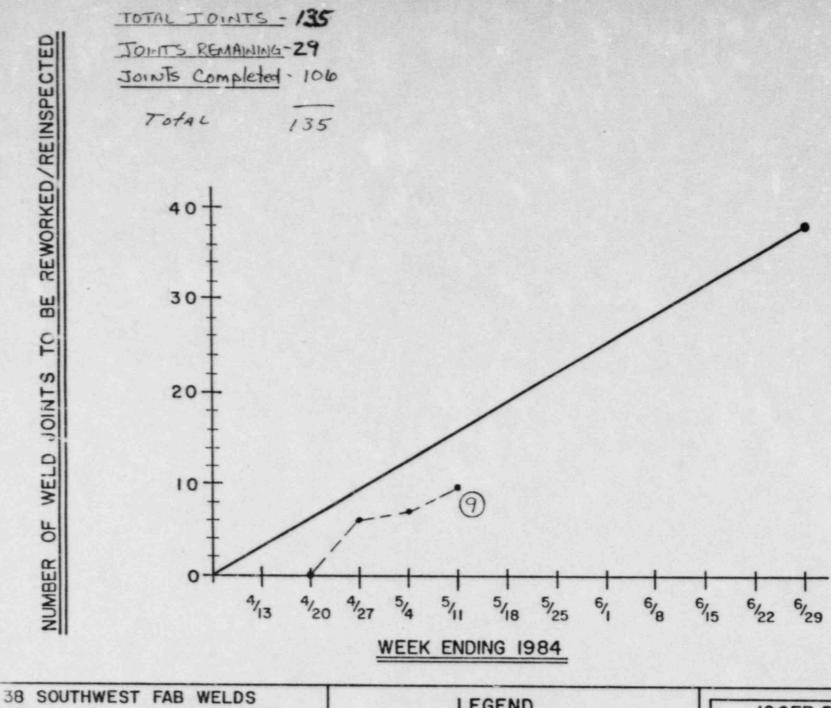


## 10CFR50.55(e) DEFICIENCIES

## 55-83-07: PIPING WELDS BY SOUTHWEST FABRICATING

- A RE-REVIEW OF SOUTHWEST FABRICATING PIPING RADIOGRAPHS
  IS COMPLETE
- APPROXIMATELY 104 WELDS MAY REQUIRE REPAIR TO CORRECT
  ADVERSE RT INDICATIONS
- APPROXIMATELY 31 WELDS REQUIRE A DOCUMENTATION CORRECTION AND/OR A RE-RADIOGRAPH
- CONSTRUCTION SCHEDULES HAVE BEEN DEVELOPED TO CORRECT WELDS THAT PROJECT COMPLETION BY JULY 1, 1984

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REMAINING TO BE REWORKED/REIN-SPECTED

60

5/84

LEGEND

SCHEDULED REWORK REINSPECTED COMPLETED REWORK REINSPECTED IOCFR 50.55e 83-07

SWF RADIOGRAPHS

# 10CFR50.55(E) DEFICIENCIES

# 55-83-10: CONTAINMENT LINER DOME CLOSURE SEAM WELD

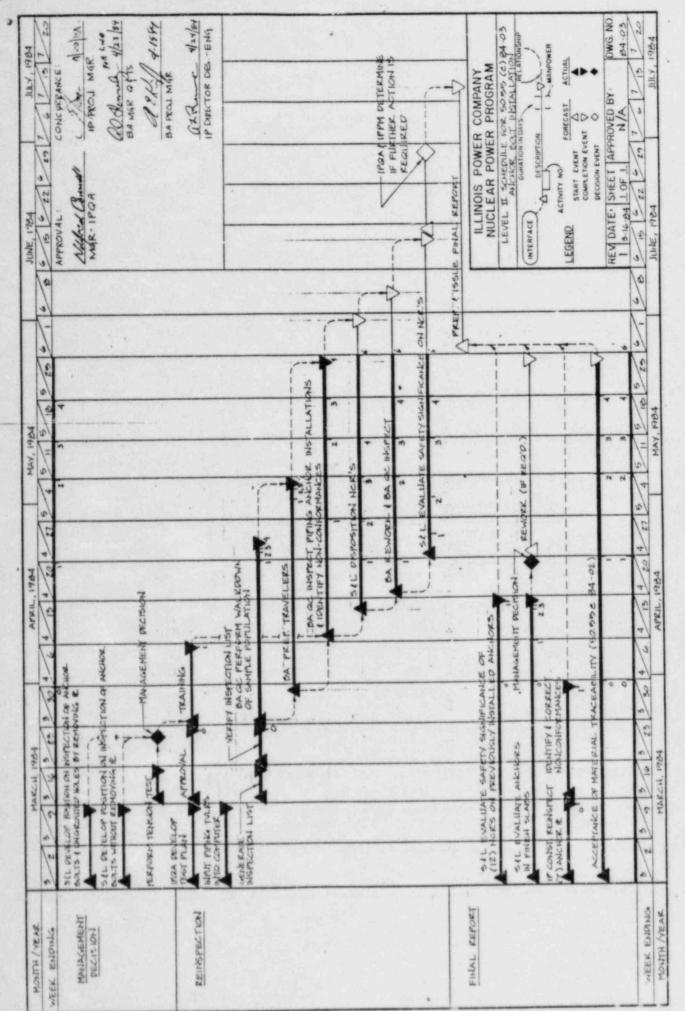
- A VISUAL AND MAGNETIC PARTICLE INSPECTION OF THE R2-R3
  CLOSURE WELD HAS BEEN COMPLETED BY BALDWIN ASSOCIATES
  AND U.S. TESTING COMPANY
- Two (2) SMALL CRACKS AND TWO (2) MAGNETIC PARTICLE INDICATIONS HAVE BEEN IDENTIFIED
- VISUAL INSPECTION HAS IDENTIFIED NUMEROUS WELD DISCREPANCIES
- AN INDEPENDENT REVIEWER HAS BEEN RETAINED TO EVALUATE THE RESULTS OF THE INSPECTIONS, WELDING REQUIREMENTS, AND TO DETERMINE THE NEED FOR FURTHER ACTION
- AN INDEPENDENT EXAMINATION HAS BEEN PERFORMED AND DETERMINED THE FOREIGN MATERIAL FOUND IN WELD WAS CHEWING GUM & WAS DEPOSITED AFTER PAINTING
- ALL ACTIONS TO CLOSE INVESTIGATION ARE SCHEDULED FOR COMPLETION BY JUNE 25, 1984

## 10CFR50.55(e) DEFICIENCIES

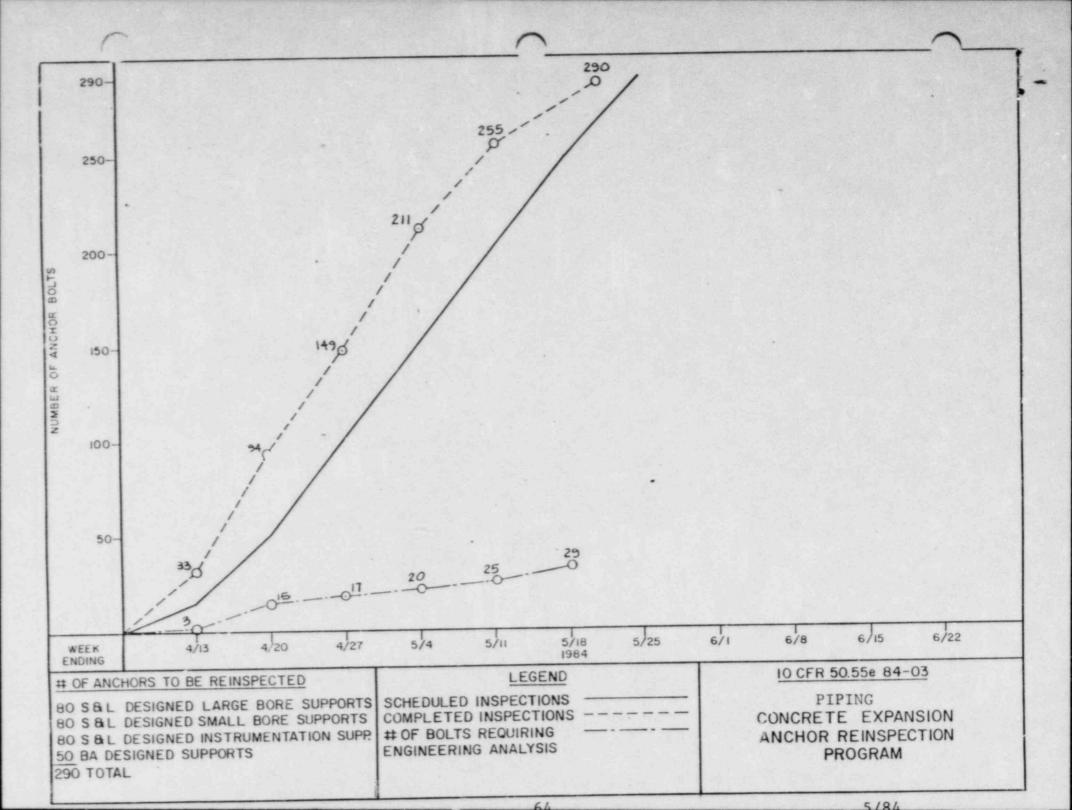
### 55-84-03: IMPROPER CONCRETE EXPANSION ANCHOR BOLT INSTALLATIONS

- ON JANUARY 11, 1984, ILLINOIS POWER COMPANY NOTIFIED NRC REGION III OF A POTENTIALLY REPORTABLE CONDITION CONCERNING IMPROPER INSTALLATION OF CONCRETE EXPANSION ANCHOR BOLTS (CEAs) AT CPS.
- IPC HAS DEVELOPED AND IMPLEMENTED A PLAN TO STATISTICALLY SAMPLE INSTALLED CEAS ON SAFETY-RELATED PIPING SUPPORTS TO DETERMINE THE ADEQUACY OF INSTALLATIONS.
- THE PLAN HAS THE FOLLOWING ELEMENTS:
  - BASED ON A MIL STANDARD 105D: 95% CONFIDENCE LEVEL
  - COMPUTER-GENERATED RANDOM SAMPLE OF CEA POPULATION
  - REINSPECTION PROCEDURE IS PRIMARILY NONDESTRUCTIVE AND DOES NOT REQUIRE REMOVAL OF ANCHORED HARDWARE
- AS OF MAY 11, 1984, 290 PIPE SUPPORT CEA INSTALLATIONS HAVE BEEN INSPECTED OUT OF A TOTAL OF 290 INSTALLATIONS TO BE INSPECTED.
- ALL OF "SUSPECT" FITTERS CEAS REINSPECTED.
- 29 NONCONFORMANCE REPORTS HAVE BEEN WRITTEN AGAINST 19
  PIPE SUPPORTS EXHIBITING CEA DEFICIENCIES.
- OVER 50% OF THE DEFICIENCIES IDENTIFIED TO DATE ARE DUE TO CONSERVATISMS IN THE REINSPECTION PROCEDURE, NOT DUE TO AN INADEQUATE CEA INSTALLATION.
- PROGRAM IS BEING EXPANDED TO ALSO REINSPECT OTHER DISCIPLINES' INSTALLATIONS (CIVIL, ELECTRICAL, HVAC, MECHANICAL)

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5/84

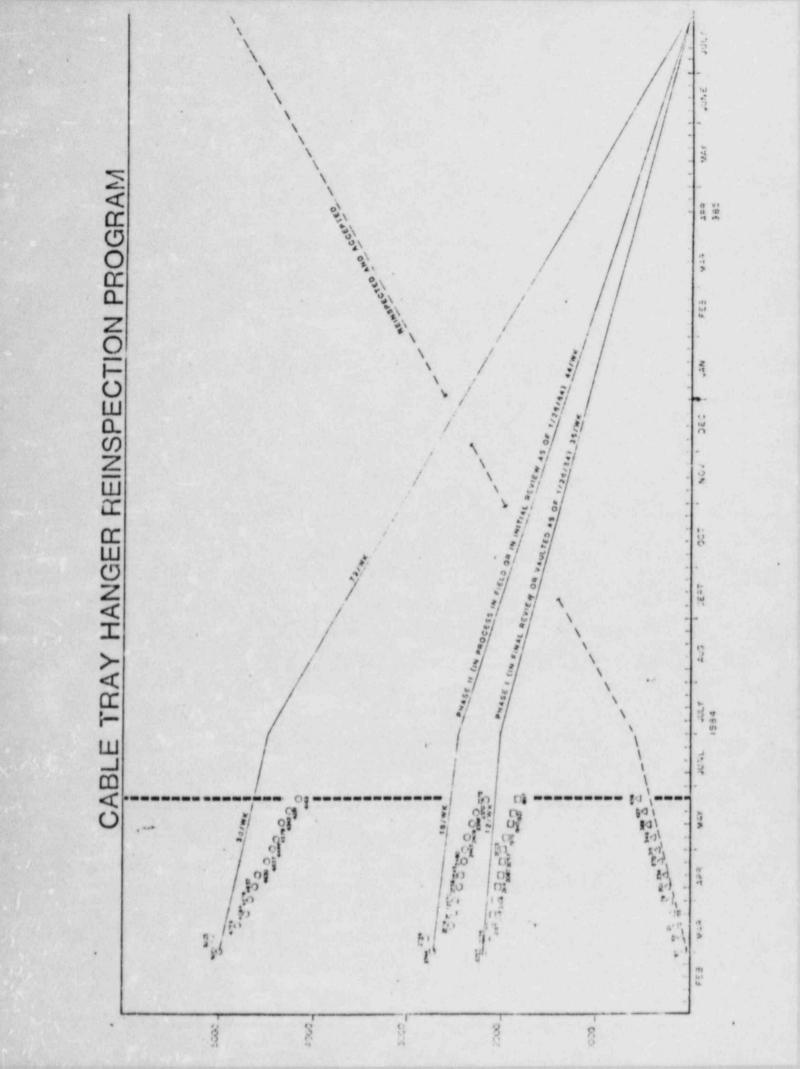


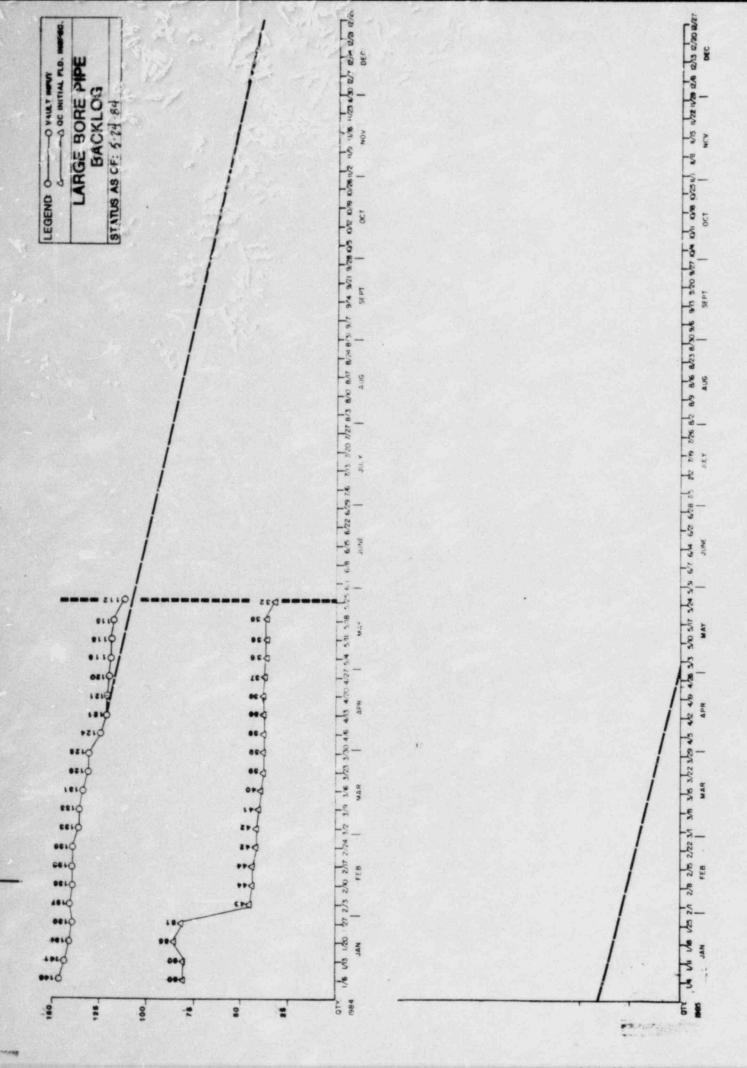
INSPECTION BACKLOG

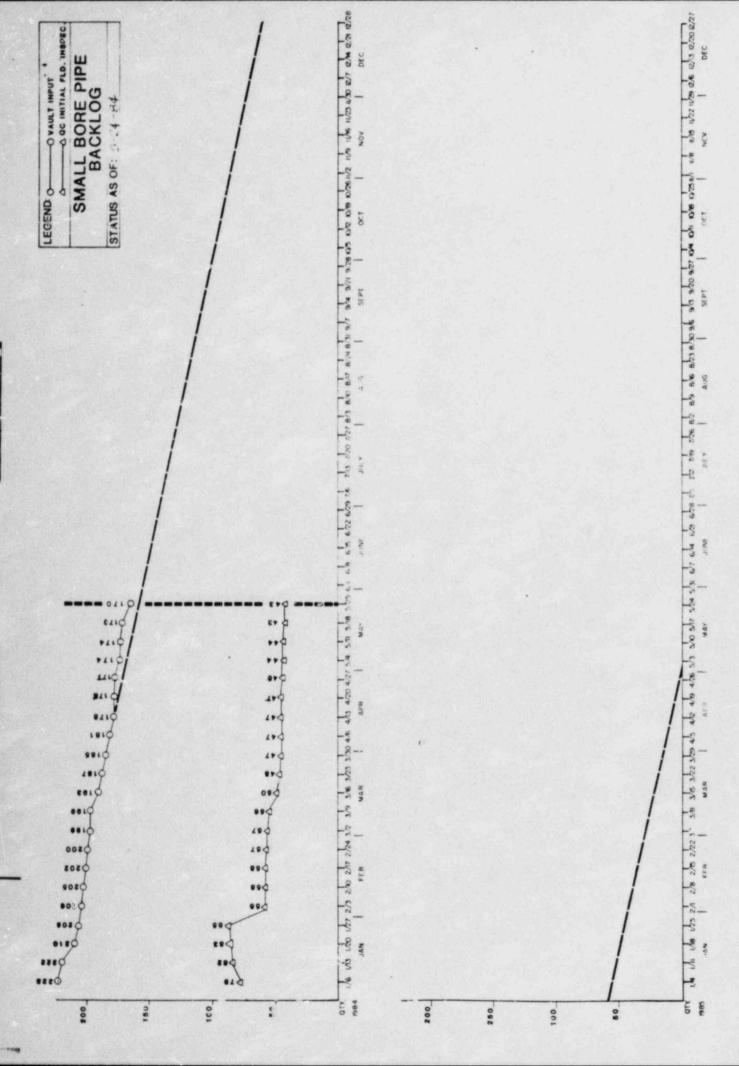
# INSPECTION BACKLOG

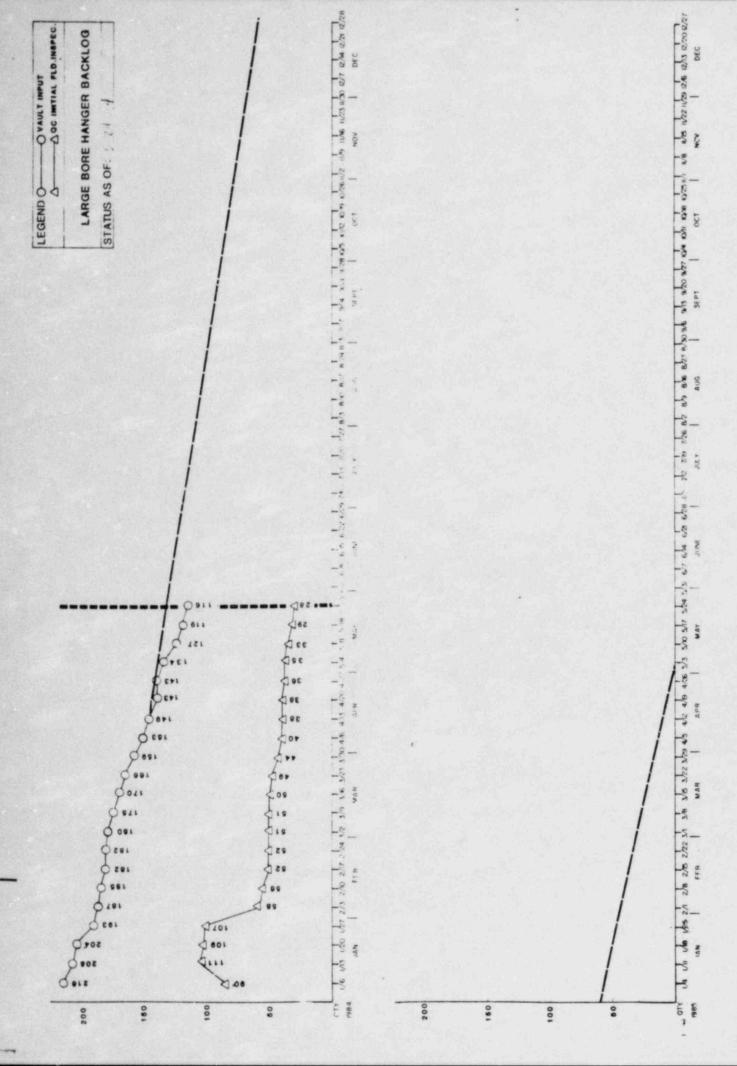
- PROGRESS UN ELIMINATING THE WORK BACKLOG HAS REMAINED POSITIVE.
- APPROXIMATELY 50% OF "BACKLOG" TRAVELERS ARE NOW VAULTED.
- TRACKING OF "BACKLOG" TRAVELERS CONTINUES AND STATUS IS UPDATED ON A WEEKLY BASIS.
- PRESENT STATUS:

TRAVELER TYPE	PROJECTED END DATE
ELECTRICAL HANGERS	JULY, 1985
SMALL FORE PIPE	MAY, 1985
SMALL BORE HANGER	MAY, 1985
LARGE BORE PIPE	MAY, 1985
LARGE BORE HANGER	MAY., 1985
INSTRUMENTATION	JUNE, 1984









or the uts the city of the standards and the sta A OC INITIAL PLD. INBPEC. SMALL BORE HANGER BACKLOG -O VAULT IMPUT STATUS AS OF: 5-24-84 LEGEND O 100 60 25

