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A L L E G A T I O N

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IN RE: :

Safety and Quality Concerns:

Regarding Nine Mile Point, : RI-85-A-0012

Unit Two Presented :

By Mr. W. Gordon Dick. :

- - - - -

Interview between Mr. W. Gordon Dick and
Mr. William Lazarus, taken at Sheraton Airport Inn,
17th Avenue, Room 4300-A, Columbus, Ohio, on Tuesday,
March 5, 1985, at 8:59 o'clock a.m.

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APPEARANCES:

Mr. William James Lazarus
631 Park Avenue
King of Prussia, Pennsylvania 19406

On behalf of Nuclear Regulatory
Commission.

- - - - -

Tuesday morning session

March 5, 1985

8:59 o'clock a.m.

PROCEEDINGS

BY MR. LAZARUS:

Q. Today is March 5, 1985. The time is 9:00 a.m. Present here at the Airport Sheraton Inn in Columbus, Ohio are myself, Mr. Bill Lazarus, Project Engineer, Region 1, about to interview Mr. W. Gordon Dick about concerns involving construction quality at Nine Mile Point, Unit Two, and also concerns relating to the readiness assessments time at the Shoreham Nuclear Power Station.

As a matter of formality would you read -- this is chapter -- Title 18, USC Section 1001, that area I marked here, just involving statements made to the government.

A. (Witness complying with request.) Okay.

Q. Do you have any questions?

A. No.

Q. Mr. Dick, for the record, would you state your name?

A. Yes, my name is W. Gordon Dick.
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1 Q. And your present address?

2 A. Present address is [REDACTED]

3 [REDACTED]

4 Q. Are you presently employed?

5 A. No, I'm not.

6 Q. What was your last position with Stone and
7 Webster Engineering Corporation?

8 A. My last position was at the Nine Mile
9 Point No. 2 Nuclear Power Station, where I was the --
10 my position was assistant superintendent of
11 construction for the electrical construction
12 management team at that project.

13 Q. Were you given a written description of
14 your duties associated with that assignment? Also,
15 to be a little more specific, what were you exactly
16 responsible for?

17 A. At that specific location, I was not given
18 a written description. I did ask for a written
19 description from my immediate supervisor, but as a
20 general understanding Stone and Webster has pat
21 descriptions of the various management positions,
22 and I was certainly familiar with the generic duties
23 of the position, but not specific to that site.

24 Q. What I would like to do is sort of
25 backtrack through your work at Nine Mile Two and to
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1 Midland and develop your concerns at Shoreham, since
2 you indicated they relate to things you identified
3 at Nine Mile Two.

4 A. To aid you on that, I would like to enter
5 this into the testimony. I've developed this
6 document to help maybe guide us through the thing,
7 if you want it.

8 Q. All right.

9 MR. LAZARUS: Okay. You can indicate the
10 title of this in the record.

11 BY MR. LAZARUS:

12 Q. I think what we can do, if you would like
13 to, you can refer to that as we go through. I have
14 it outlined in my mind, the order I would like to
15 take this in, if we can do it that way. Prior to
16 working at Nine Mile Point Two, you indicated you
17 were at Midland. What was your position there?

18 A. Consulting QA, and I was on the CIOR Team

19 Q. What is the CIOR Team?

20 A. Construction implementation overview, and
21 it was a special task force that had been assigned
22 to the Midland project to oversee the
23 re-implementation of construction there. The
24 construction, of course, had been -- at least on
25 safety related components had been terminated by
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1 NRC, direction or possibly by also by the Utilities
2 Quality Assurance Department, but also by the
3 Commission. And Stone and Webster had been retained
4 to overview the re-implementation of construction of
5 that site, which, I guess, subsequently was
6 unsuccessful, but nevertheless, they were there for
7 that purpose.

8 Q. What time period were you assigned at
9 Midland?

10 A. I arrived at December 30th, and I left
11 Midland to go to Nine Mile Two, I believe it was the
12 10th, arriving at Nine Mile Two on the 13th of March,
13 1984.

14 Q. So that was December 5, 1983 until?

15 A. Until March the 10th.

16 Q. 1984?

17 A. 1984.

18 Q. And your time at Nine Mile Two was from
19 March --

20 A. March the 13th until May the 2nd.

21 Q. May the 2nd. Continuing back on prior to
22 your assignment in December of 1983 at Midland, you
23 were at Shoreham Nuclear Power Station?

24 A. That's correct.

25 Q. Could you describe your title and job
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1 description and the time period you were employed
2 there?

3 A. My title, I had various positions there
4 with Stone and Webster, assistant superintendent of
5 construction. I had various positions. Initially
6 when I arrived at the site, I reported to the
7 vice-president of nuclear, Mr. Andy Wolford on a
8 special position that was -- the purpose of which
9 was to advise him and counsel with him in regards to
10 the PSC Audit that was about to begin at the
11 Shoreham project in 1979.

12 Following that I was asked to participate
13 in the compilation of new schedules -- revised
14 schedules for the project. Following that effort I
15 was asked to head that effort up at Shoreham. I did
16 that for the better part of a year, and then I was
17 assigned as the superintendent of electrical
18 construction, again, that was a construction
19 management role in which I was managing a major
20 contractor who was responsible for actually
21 performing the construction.

22 Then in the latter -- in the final year of
23 my assignment at Shoreham, I was involved as a
24 special superintendent for overseeing the quality
25 accountability program in various other aspects of
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1 the validation of the project, if you will, from
2 quality standpoint.

3 Q. You indicated some concerns in your
4 correspondence and telephone conversations with
5 myself concerning the readiness assessment team
6 conducted at Shoreham, and you mentioned the way
7 that the close-out findings of that inspection were
8 handled.

9 A. Yes.

10 Q. I would like to try to develop the
11 concerns of that in that area.

12 A. If you would like, I will read that into
13 the record -- that document does not directly relate
14 to Shoreham. These are -- if you like, I will read
15 into the record the matters that concern me in
16 regards to Shoreham. These matters were provided to
17 the Nuclear Regulatory Commission for the record, in
18 accordance with 10 CFR 212.

19 The objections are provided retrosepectively
20 as a result of subsequent inspections at Midland,
21 Michigan, and Nine Mile Point No. 2 in up-state New
22 York. The matters are germane to conditions at Nine
23 Mile Point No. 2 where the interdependency of
24 programs effecting safety and quality exhibited
25 similar characteristics and similiar to Count 4,
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1 were interdependency through power management, lack
2 of thoroughness and a pervasive absence of
3 objectivity has adversely effected safety and
4 quality.

5 The items are as follows: One, in mid
6 1983 the investigative and corrective program
7 initiated as a result of readiness assessment was
8 included with the acknowledgment of the Nuclear
9 Regulatory Commission.

10 Two, premises and assumption on which the
11 scope and eventual outcome of post-readiness
12 assessment measures were based were not evaluated
13 prior to the conclusion of the program to validate
14 validity.

15 Three, especially safety related
16 components, systems and structures selected for
17 evaluation were chosen partly on the basis of those
18 initially inspected, and did not insure representation
19 of overall plant quality.

20 Four, guidelines and evaluation method
21 which evolved during post-readiness assessment were
22 not evaluated and formally approved to insure
23 effectiveness and applicability. Findings were
24 classified and categorized by these guidelines.

25 Five, readiness assessment and the
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1 post-corrective measures were intended to assess
2 overall plant readiness. The NKC appeared to
3 conclude their readiness assessment follow-up on the
4 basis of examining corrective measures for
5 individual findings.

6 Six, extreme cost and schedule pressures
7 existing during this period impaired objectivity,
8 and to an extent, the thoroughness of investigative
9 measures. Uncertainty arising from major
10 organizational and personnel transitions further
11 impaired continuity of follow-through essential to
12 the conclusion of the program.

13 Q. I have some questions on that.

14 A. Yes.

15 Q. I will refer to this, is it may?

16 A. Yes.

17 Q. Item No. 2, the premise and assumptions
18 were not evaluated prior to the conclusion of the
19 program to confirm validity, could you amplify that
20 a little bit?

21 A. The item No. 3 is the major example of
22 that. When the program was initiated, there were
23 assumptions made with regards to what piece of the
24 plant would be subjected to these corrective
25 measures, and the majority, if not all of the effort,
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1 was focused on that which was remaining to be
2 inspected.

3 Now, I, at the time when I was first
4 introduced to my role in that particular effort,
5 went about examining the assumptions and raised the
6 questions with various individuals that were
7 involved with the effort and had been in on the
8 inception and agreement with the NRC. And, you know,
9 it was reported to me at that time that this was
10 what had been worked out with the NRC.

11 Now, at the time I did question this
12 matter, but in the rush to get on with the program I
13 accepted the assumptions with the understanding that
14 we would eventually go back and confirm those
15 assumptions.

16 Q. I think I -- the way I read this, your
17 concern was that they should have looked at items
18 that had been completed, also?

19 A. I think in light of the outcome of the
20 post-readiness assessment effort and the measureable
21 level of defects that were encountered after final
22 inspection, even in a population that had not been
23 final inspected when the readiness assessment effort
24 became known, it seems to me there should have been
25 some reflecting upon the populations prior to --
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1 prior to the readiness assessment effort.

2 Q. Those would be once that had already been
3 final inspected?

4 A. That's correct. That's correct.

5 Q. Item No. 4 the guidelines and evaluation
6 guidelines when evolved during post-readiness
7 assessment were not evaluated and formally approved,
8 are you referring to NRC guidelines?

9 A. No, the evaluation method, the regulations,
10 for example, 10 CFR 21, for example, and I'm going
11 to surmise 10 CFR 50, but I'm referring to 10 CFR 41
12 here indicated a fine in the evaluation process in
13 the event violations of safety related components
14 are found. There is no -- there is very little
15 specificity beyond the definition, what the
16 perimeter would be for evaluations. Evaluations
17 would be tailored for individual findings.

18 Now, I attempted, by making reference to
19 initially -- initially attempting to get a copy of
20 Military Standard 105 D, I attempted to create
21 quantitative methods for evaluating whatever might
22 come out of the -- of the post-readiness assessment
23 effort, and that particular evaluation method was
24 never formally approved.

25 It was entered into the record of
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1 readiness assessment and it was used in a very minor
2 way, but in retrospect, I believe that such a
3 quantitative method, in light of the measurable
4 level of defects that were exiting from the overall
5 evaluation, that a quantitative method should have
6 been religiously developed and applied to insure,
7 No. 1, that the assumptions going into the
8 post-readiness assessment effort were valid, and No.
9 2, that the -- that we could then insure ourselves
10 that the -- that those components that had already
11 been final inspected and not subjected to the rigors
12 of readiness assessment, were, indeed, satisfactory,
13 in light of what we found during readiness
14 assessment. That's --

15 Q. I think you are saying that it should have
16 been analyzed from a statistical standpoint to find
17 out what sort of sample we needed to have a valid --
18 to understand you had a valid reason for closing it
19 out?

20 A. For closing it out. Now, the close-out
21 was somewhat sudden -- the close-out of the effort
22 was somewhat sudden. We had a meeting, as I recall,
23 I could not give you a date without going back and
24 checking into the records, but it was a meeting with
25 the Commission which I attended, one of several.

1 This one occurred in mid-1983, that is the closest I
2 can give you with regards to the timing, and
3 immediately following that meeting the word was that
4 the NRC is well satisfied with the effort and we can
5 wrap up these final items and close out the program.

6 Now, you know, as I indicated to you in
7 retrospect, I believe that that was premature. That
8 was a premature decision, and at that particular
9 time, many of us were very, very busy. We had many,
10 many other tasks to contend with, and, frankly, we
11 viewed that as something that was acceptable, that
12 the NRC found it acceptable and let's get on with
13 the business of solving the other puzzles that we
14 had.

15 Q. Were you not convinced that there were
16 problems that existed after readiness assessment
17 that were not done, investigated, that the NRC told
18 ARCO what they needed to do?

19 A. I don't think there were any -- there was
20 nothing found during readiness assessment that was
21 not analyzed during readiness assessment and fixed
22 if it needed to be fixed. There was nothing anyone
23 blatantly said, we are not going to fix that.

24 Certainly those items were addressed. Anything
25 found during readiness assessment were addressed

1 responsibly by the individuals at the time.

2 Q. You state the NRC appeared to conclude
3 their readiness assessment follow-up on the basis of
4 examining corrective measures for individual
5 findings, what would you have expected to see?

6 A. I would have -- given the initial thrust
7 of readiness assessment, many individuals from the
8 Commission coming on-site and a very in suspense
9 have examination, then a very relatively detailed
10 report emerging as the so-called readiness record of
11 8302, then there seemed to be a relative vacuum, if
12 you will, and there were intermittent, sporadic NRC
13 inspectors that would arrive.

14 And with the assistance of Mr. Higgins,
15 who at that time was a senior inspector, but usually
16 on their own, would review the data that was being
17 presented on the basis of individual findings, so
18 that it did not appear to be, to the best that I
19 could determine, and again this is -- this is
20 retrospective, my experience at Midland and my
21 experience at Nine Mile and my subsequent
22 examination of these matters led me to reflect upon
23 these matters at Shoreham and ask myself, in all
24 honesty, what were my real perceptions in regard to
25 these matters, and these are my real perceptions,
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1 that NRC focused largely on the individual findings,
2 and to the best of my knowledge, they did not
3 religiously and quantitatively examine the matters
4 to insure th the overall plant had been assessed
5 correctly in the aftermath of readiness assessment.
6 That was my impression.

7 Q. To make sure I understand, I'm trying to
8 clear your concerns over the way the readiness
9 inspection was done. It did not look at the scope
10 or look at the reasons for particular findings, it
11 focused on individual findings, rather than looking
12 at the causes of the findings, or was it more
13 related to the close-outs of the findings after they
14 were identified?

15 A. I am not really sure that we might
16 eventually be talking here at cross purposes, but I
17 will attempt to answer your question.

18 When the individual inspectors would
19 arrive on the site periodically during the period of
20 January of '83 to the middle of '83, they appeared
21 to take individual -- they would come, to my
22 recollection, they would say, "I want to look at
23 this and this and this today," and leave, and
24 another fellow would come and say, "I want to see
25 this, this and this," and it was discontinuity in
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1 saying this item is cleared up, this item is cleared
2 up. There did not appear to be an examination of
3 data as a whole.

4 Q. Okay.

5 A. And then some attempt made to say, let me
6 statistically extrapolate the plant as an entity, or
7 the safety related portion of the plant as an entity.

8 Q. I think what you're saying is it would
9 have satisfied your concerns more if essentially a
10 second readiness assessment team had come in and
11 done another look in the same area to verify that
12 the correct actions had been taken, to get a look at
13 the whole picture, instead of individual, isolated --

14 A. That might have achieved the satisfaction.
15 However, I guess my concerns to a greater extent
16 focus on the lack of quantitative extrapolation from
17 a sample we had taken, back to the whole plant.
18 There seemed to be an aversion, to be candid with
19 you, there seemed to be an aversion to look beyond
20 the scope of readiness assessment back to the whole
21 plant.

22 The idea was, hey, let's not -- let's not
23 open up the can of worms to say this might reflect
24 back on the whole plant. That was an unspoken word,
25 but it was pervasive, nevertheless. It was, you
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1 know, an unspoken axiom, if you will, of the effort,
2 it seemed to me. Again, that is to the best of my
3 recollection, to the best of my ability. I honestly
4 give you that into testimony.

5 Q. We are just trying to develop what you're
6 concerns are, and the way I understand it, one was
7 the scope of readiness assessment, inspections did
8 not go back and look at the whole plant, focused on
9 a narrow variety of items which had been final
10 inspected?

11 A. That were awaiting final inspections.

12 Q. That were awaiting final inspections?

13 A. Since, if you will, the cat was out of the
14 bag, the consequence of readiness assessment
15 construction, QC and quality assurance was alerted
16 so the whole process was not statistically
17 representative of what might have gone before. Now,
18 how the NRC and others within the organization
19 arrived at that conclusion, I do not know.

20 I am not testifying to you that I know,
21 No. 1, how they did it, and that, No. 2, their
22 methodology was unsatisfactory. I'm saying I raised
23 the question at the time, and I was told that is an
24 initial assumption, we are going to look at this,
25 this and this that remains to be done. Given the
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1 pressures with the business of doing it, you take
2 the initial assumptions and you run with the initial
3 assumptions, and certainly I did that to the best of
4 my ability.

5 Q. And the second major area was the
6 close-out of items after they had been identified?

7 A. Yes.

8 Q. Individually rather than programmatically?

9 A. Programmatically, correct. The whole
10 tenant of readiness assessments was programmatically
11 we are going to take a poloroid shot, if you will,
12 of coming here and do a very intensive poloroid shot
13 and try to get an assessment of your state of
14 readiness, and then there was -- seemed as though,
15 to an extent, a vacuum beyond that point when it
16 became sort of a more -- intensity was reduced to
17 individual visits.

18 Q. Are you aware of any specific items that
19 were overlooked because of this approach, that we
20 could go back and look at, or are you just really
21 concerned about the methodology right now?

22 A. Principally the methodology. I could say
23 well, there were things -- in any large management
24 team you -- especially when you are meeting with
25 various individual departments that have got widely
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1 seperated responsibility, such as quality assurance,
2 quality control and construction, there is a
3 tendency, you know, among most human beings to
4 arrive at the consensus opinion as to how one should
5 proceed.

6 There were individual things that I was
7 not necessarily in total agreement with, but as the
8 substitute chairman on behalf of the director of
9 nuclear in the meeting, it was necessary for me to
10 behave in a responsible manner and to listen and to
11 attempt to assess the consensus of the various
12 responsible managers that were representing
13 construction, engineering, quality control and
14 quality assurance in the various meetings that we
15 conducted to discuss the individual items.

16 Q. Do you have concerns that -- outside the
17 scope of the readiness assessment concerning the
18 construction quality, or are you really just
19 concerned that we don't know enough?

20 A. I didn't come here -- I came here to give
21 you that testimony. The question you asked me for
22 me to go on the record to say no, I have no other
23 concerns. I came here to focus on those concerns.
24 If we followed up on that, and if I went back and
25 did some more research, you know --

1 Q. You don't have anything specific?

2 A. I'm not coming here to testify to you that
3 I have any other concerns, no.

4 Q. Is there anything else concerning the
5 readiness assessment issues that we haven't
6 discussed?

7 A. I don't think so. I don't think so.

8 Q. Then I would like to --

9 A. Let me offer this into testimony with
10 regards to the quantitative readiness assessment.
11 There was a definite reluctance to pursue, for
12 example, the utilities of Mill standards R 105 D.
13 I don't recall whether that reluctance was fully
14 shared by the Commission. The question of
15 homogeneity of the inspection of the arriving
16 product was a contention. It was a non-homogenous
17 product that was arriving, and therefore the
18 application of 105 D was, at best, difficult.

19 I questioned that and there was -- it
20 seemed to me that the aversion was, at least in part
21 due to the fact that testimony had already been made
22 towards dealing with concerns by sufficient folks
23 that 105 D was not applicable to the industry, and
24 in light of that prior testimony about 105 D that we
25 discussed, we couldn't begin to refer to it or use
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1 it at the site because we already made that
2 statement, and let's not open that issue up.

3 And I, personally, am someone who feels
4 that numerical representation of conditions is a
5 very powerful -- is a very important supplement to
6 the evaluation of any condition, and therefore, I,
7 in retrospect, I wish I had been more aggressive, in
8 saying, "Now, I insist we utilize 105 D instead of
9 accepting the consensus view that is in error.
10 Let's try to resolve this matter of readiness
11 assessment without emphasizing that area."

12 Q. Clarification for the record, Mill
13 Standard 105, is that a method for developing a
14 statistical sample?

15 A. Yes.

16 Q. Describes how large your sample should be,
17 so it tells you what you need to know?

18 A. Right.

19 Q. Let's go forward in time, back -- we went
20 through the Midland Project and arrived at Nine Mile
21 Point Unit Two, again your title at --

22 A. Assistant superintendent of construction
23 for electrical construction management.

24 Q. I'll be referring to the two letters that
25 you sent to our office, one dated January 26th, I
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1 believe -- January 26, 1985 and the other one
2 February 14, 1985 to amplify some of the concerns
3 brought to our attention in those two letters.

4 A. Okay.

5 Q. In the January 26th letter, one of the --
6 I'm sorry I have copies here if you do not have them.

7 A. These letters, by the way, are made a part
8 of this record here.

9 Q. Fine. Attachment one to your January 26th
10 letter, Item No. 1, you refer to major milestone
11 schedules containing significant known omissions.
12 Could you be specific as to what omissions you are
13 referring to?

14 A. The major omissions that were of great
15 concern to me, and this again is within this
16 document that I'm giving you here in greater detail
17 in the reference, the major omissions were in three
18 principal areas, No. 1, the assumption that quality
19 control will support the schedules, the assumption
20 that engineering will support the schedules, and the
21 assumption that contractor interphasing difficulties
22 will not be made a part of these schedules, these
23 schedules will be stand alone schedules.

24 Those are three assumptions on the record
25 in writing by the individual developing the
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1 schedules, and to me, it was my personal, first hand
2 experience that those assumptions were simply
3 contrary to good practices in the industry, and in
4 my opinion they were contrary to safety and quality
5 at that project. I feel very strongly, if I recall,
6 with respect to that.

7 Q. You refer to it as being highly relevant
8 to your recent experience at Shorham, is that what
9 you are referring to?

10 A. Absolutely. Absolutely. I saw repeatedly
11 where the product arriving for inspection was being
12 handled in a manner that was being hurried,
13 harassed, get it there, meet the schedule. And
14 steps that were, I feel, important to quality, were
15 being overlooked in no uncertain terms.

16 Q. Could you be a little more specific on the
17 steps that were being overlooked?

18 A. The most obvious was the triple-CP program
19 which I discussed, but the construction completion
20 control program where these forms -- it was like a
21 snow storm. It was like a blizzard, and these forms
22 were on their way through the established routing
23 system, and it seemed to me there was hardly time
24 for signature, let alone time to go out and examine
25 the components being discussed on the forms.

1 Q. In the next paragraph, Paragraph 2, is
2 that referring to the same area, milestone schedules.

3 A. That is what I'm referring to.

4 Q. The poor work practices, procedural and
5 quality omissions, are these the same items you
6 just referred to?

7 A. Yes.

8 Q. As far as pushing paperwork through
9 without sufficient time to really analyze it?

10 A. Yes.

11 Q. You also refer to, in that Paragraph 2,
12 excessive quality rejections?

13 A. Yes.

14 Q. Examples of what area those rejections
15 fell into, this is still the electrical cable?

16 A. Yes. When I was there, there were -- I
17 was confronted with a situation where quality
18 control wanted to return batches of, en masse, or
19 documentation and, you know, since I had just
20 arrived there, it was difficult for me to objectively
21 conclude why this was quality control, why they
22 wanted to do this, if you will, so even getting
23 myself acquainted with what the problems were and
24 why they wanted to return batches of this
25 information, of these forms for inspections, but
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1 there were several examples and some are developed
2 and referred to in more detail in the document I
3 have.

4 Q. They are talking about concerns for CCCP
5 program --

6 A. That was the focal point. Let me say this:
7 That was the main area. Let me say that the final
8 inspections and acceptance of safety related
9 components that were, in fact, pieces of complex
10 equipment, such as switch gear, and the like, I
11 found those, and also control panels, I found those,
12 in my experience, to be vastly the most difficult
13 areas to insure quality, because changes were coming
14 along, cables were being installed and terminated
15 later, so there was constant two and fro, accepting
16 these panels and assessing these switch gears.

17 For example, at Shoreham it was going on
18 right up to the last man and probably going on today
19 as they prepare for these diesel generators. Until
20 that process is controlled, the assurance of quality
21 in my position -- it's my position that assurance of
22 quality is suspect, and there was just -- at Nine
23 Mile it was the processing of triple CP forms was a
24 blizzard.

25 Q. I believe you're indicating that the
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1 quality control inspectors were identifying the
2 problems and sending the things back, but your
3 excessive --

4 A. When I was arriving they were attempting
5 to send them back, but it's my concern, again,
6 referring back to the recollection of Shoreham, that
7 the quality control inspectors are only human.
8 There are some that they are going to miss, and, you
9 know, the quality of an in-coming product arriving
10 at quality assurance is a factor in what gets missed.
11 It's inevitably a factor in what gets missed.

12 Q. In item No. 4, you refer to solicitation
13 of funding?

14 A. Yes.

15 Q. By whom are you speaking there?

16 A. I'm referring to the solicitation of
17 funding by those individuals who are funding the
18 project, Niagara Mohawk and the five other utilities.

19 Q. So this is Niagara Mohawk's public
20 solicitation of funding?

21 A. Yes.

22 Q. Through stock sales or bond sales?

23 A. That's right.

24 Q. And you're saying that Niagara Mohawk knew
25 of the information and had unrealistic assumptions?
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1 A. I knew it and I reported it.

2 Q. To Stone and Webster?

3 A. To Stone and Webster and also to --
4 eventually in a meeting immediately prior to my
5 discharge, in a meeting in front of Mr. William
6 Morrison, who was the project director. Although he
7 was a MAC employee, he was also, to my understanding,
8 a vice-president of Niagara Mohawk as part of the
9 integrated team, and that was at 5:00 p.m. on May
10 the 2nd, and on May the 3rd I was terminated.

11 Q. An example of the omission of significant
12 work from these --

13 A. The omission of -- again, this document
14 provides you with examples of what was omitted in
15 some detail, but again, the assumptions that quality
16 will support the schedule, the assumptions that
17 contractor interphasing of these schedules will be
18 stand alone schedules, the assumption that
19 engineering will support the schedule, there were
20 repeated examples at this project and other projects
21 that made these kind of assumptions simply
22 unacceptable. The assumptions were grossly
23 simplified and unacceptable to any reasonable
24 observer knowledgeable in that industry. That is
25 very firmly what I believe in that case.

1 Q. All right. Paragraph No. 5 the quality
2 difficulties were brought to managements attention.
3 Specifically, which quality difficulties? Are you
4 talking again about the --

5 A. About the processing of these -- the
6 product arriving for inspection was simply not being
7 handled properly. The process was being abused,
8 shortcuts were being taken, and people were
9 overwhelmed by it. And although -- it was my sense
10 in the brief period that I was there that QC would
11 be overwhelmed by this, quality control would be
12 overwhelmed by this, the intensity of this attempt
13 to get the paper over and take the particular
14 attitude of trying to merge the schedule objective
15 with the quality objective.

16 Q. And putting the load on quality control to
17 really --

18 A. Right, which was the very essence of --
19 one of the biggest points made by readiness
20 assessment, which as I pointed out to you, made a
21 believer out of me. In retrospect, as I observed
22 the consequence of readiness assessment, that you
23 cannot blindly rely that QC will pick up all the
24 errors. You must address the question of the
25 quality of the product arriving for inspection. 1
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1 believe you must do that in a quantitative manner,
2 supplemented with good judgment. Good judgment, in
3 my opinion, simply doesn't do the job.

4 Q. In paragraph No. 6, you refer to some highly
5 experienced employees who sought to identify these
6 difficulties were discredited and criticized, can
7 you give us some names of who was involved with that?

8 A. Two main individuals come to mind,
9 although there were several. One is the gentleman I
10 replaced and who I had frequent conversations with.
11 When I arrived there, the individual I replaced, who
12 I did not know, his name was John Ronco, and John,
13 my replacing of John was to his discredit. He had
14 every reason to be very resentful of my arrival at
15 the job site.

16 I think in light of the pressures brought
17 about by that, I think he was a very objective
18 individual, in spite of the pressures of that
19 situation. He attempted to apprise me of the real
20 situation in regards to these matters, and I
21 listened to him. Initially I listened with, I guess,
22 a jaundiced eye. I felt this man has been
23 discredited by the organization, he has been pushed
24 aside, but let me listen to him because it was part
25 of my job to listen to him, he reported to me. And
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1 I developed a firm belief that Mr. Ronco's
2 observations that this abuse of programmatic
3 shortcuts to attempt to achieve scheduled goals was
4 real. It was not a -- it was something, No. 1, I
5 was beginning to observe myself, and No. 2, that
6 what Mr. Ronco was saying was -- seemed to ring true,
7 in my personal view.

8 Now, another individual that happens to be
9 a former colleague of mine, was Mr. David Frederick,
10 who he even before I arrived at the job site had
11 conversations, and when I arrived at the job site
12 also had conversations, and he offered observations
13 that incite, if you will, to how the programs were
14 being abused, and I hesitate to enter into testimony
15 that the -- that deceptions were being engaged in.
16 I hesitate to say that, but nevertheless, I, my own
17 personal belief is that in order to try to bring the
18 whole business together and make it look as though
19 we were attempting to achieve schedules, were
20 attempting to achieve quality, that the project had
21 disintegrated into a massive deception. I hesitate
22 to say that, but frankly that is my personal belief.

23 I don't say that with bitterness. I don't
24 say it because of my personal circumstances. I say
25 it with honesty and conviction.

1 Q. You refer to these experienced employees
2 being discredited and criticised, by whom?

3 A. By their immediate supervisors. Frederick
4 was run over from Nine Mile. He was sent to
5 Millstone, in what I would describe as servitude to
6 reprogram him, if you will, for raising these
7 absurdities with management, and Ronco was
8 discredited immediately on the site, and eventually
9 transferred to Beaver Valley.

10 I think that there were other individuals,
11 I feel, but I don't have -- although I know the
12 individuals, I don't have -- I did not have direct
13 conversations with them, so therefore I prefer not
14 to enter their names into this record, but
15 nevertheless, certainly the treatment of Frederick,
16 I think -- it's my personal belief that it was
17 improper, and it was indicative of the management
18 tactics that were in the process at that time.

19 Q. You have a concern that Stone and
20 Webster's handling of people who brought concerns
21 would have a chilling effect on anyone voicing
22 concerns?

23 A. Absolutely. And quite frankly, I think,
24 although I attempted, as you will see from the
25 record I submitted to you today, I made efforts to
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1 communicate my concerns to the extent feasible,
2 exempting me from my -- personally from corrective
3 measures, at least initially. Nevertheless, I think
4 that my dismissal would have a chilling effect on
5 individuals, because in spite of reclamations that
6 deal with these matters, I think the record shows,
7 as best I can determine it, that employment at will,
8 for example, is a very powerful doctrine, and you
9 can have regulations until the end of time, but a
10 company has got the employment at will doctrine to
11 stand behind and say, "Hey, we didn't like the look
12 of the guy. He didn't fit into our scheme of things,
13 and we had to get rid of him." Put that on the
14 record and what are you going to do about it?

15 Q. You also refer to the manager of
16 electrical construction abruptly fired?

17 A. That was myself.

18 Q. That was yourself, okay.

19 A. Right. Please forgive, if you will, the
20 most exact title that described my position was
21 manager -- I was electrical manager over electrical
22 construction, but my official title was assistant
23 superintendent. We were over construction mode as
24 opposed to directly managing the craft. It's not
25 intended to be a misrepresentation there.

1 Q. I understand. In paragraph No. 8, you
2 refer to documented details substantiating concerns,
3 are they included in this information you have referred

4 A. They are in part, and they are also
5 referenced, and some of these are on the site, but I
6 have referenced them here fairly explicitly.

7 Q. For the record, could you give us an idea
8 as far as the documented details?

9 A. I was going to read into the record the
10 introduction to this document, and that would make
11 reference, for the record, of the specific
12 references. There is more than just one, there are
13 many. I will give you one example of that, I think.
14 For example, I think Reference 2.10 to the document
15 that was submitted into testimony, and I think that
16 reference 15 on page 14 of attachment 2.2 to the
17 document submitted into testimony, and, specifically,
18 the attachment to reference 15 is a good indication
19 of attempts that were made to identify omissions to
20 schedules that were overlooked.

21 I recall, for example, sitting in a
22 meeting with -- it was an informal meeting with the
23 planning manager and the superintendent of
24 construction at Nine Mile Two, and after I conveyed
25 my concerns to the planning manager that these are
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1 gross omissions and here's what I propose, his
2 response to me was, "Look, I know Morrison, I have
3 talked to Morrison, and if I take this to him, I see
4 this as you're saying we can't meet the schedule,
5 milestones that were drawn. If I take it to him, if we
6 can't draw it this way, pack your bags and go home."
7 That is what he told me sitting right in the meeting.
8 This is developed in greater detail that this is
9 referenced, but this kind of -- well, I believe the
10 record speaks for itself.

11 Q. We'll attach this document to the
12 interview transcript and refer to it as an
13 attachment so we can refer directly to the sections
14 in this --

15 A. Yes.

16 Q. -- during the review of the transcript.

17 A. Um-hmm.

18 Q. You also indicated in paragraph 8 that
19 documented details in existence at that time, and
20 evolving in subsequent months substantiate these
21 concerns. Where did you get the information for the
22 time period, I assume after you left the site?

23 A. I do have some information that I obtained,
24 and it is Nine Mile Two information, and it is
25 included in the record.

1 Q. This is your third party information, it's
2 not directly -- you are not directly observing this
3 information?

4 A. No, the information was sent directly to
5 me.

6 Q. By another individual?

7 A. That's correct.

8 Q. Can we know who that other individual is?

9 A. On the record -- I prefer not to put his
10 name into the record. I will be happy to make that
11 information -- the individual has indicated to me
12 that he will be happy to go on -- perhaps not go on
13 the record, but to have discussions with the
14 Regulatory Agency in regards to this matter, but he --
15 I don't have -- he did not refuse to let me use his
16 name. However, I don't have his specific authority
17 to use his name here.

18 Let me give you one clarification. The
19 document I entered into testimony today has both my
20 name, and if you look at the bottom, and the name of
21 [REDACTED] has reviewed this
22 information with me, and in the majority of areas
23 that he can support the information, he is in
24 concurrence with this document.

25 Q. All right. Continuing on with paragraph c,
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1 you referred to potentially disruptive management
2 changes?

3 A. Yeah. well, to begin with, I think that --
4 I even think of Ronco's displacement, in retrospect,
5 was disruptive. I think the essence of the problem
6 there, as I could perceive it, was management's
7 failure to support Mr. Ronco in the performance of
8 his duties as he saw it. There were, you know --
9 frankly, I think he could have been utilized more
10 effectively by listening to what he had to say on
11 how to get the job done.

12 He was a highly experienced individual
13 with a lot of electrical background, but the
14 superintendent of construction Mr. Larry Brown, gave
15 me a list of individuals that he removed from the
16 job site over a period of time, and I hesitate to
17 enter their names into testimony, but, frankly, when
18 I know who the individuals were and the fact that he
19 discredited them, I think that those -- it's my
20 observations -- and I told him some -- that I felt
21 that those decisions by him were disruptive and
22 detrimental to the project, given the individuals
23 that had been -- In addition to that, if you examine
24 the record of removal of individuals from the Nine
25 Mile 2 project in 1984, it's my observation that
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1 something disruptive was going on there.

2 Let's examine who is. Wagner, Ronco, I'm
3 gone from the project, Mr. Morrison is gone from the
4 project. They brought in Mr. John Capus from
5 Millstone who has executive PWR experience but has
6 very little recent BWR experience. There are those
7 that argue that when you were in senior specific
8 type of reactors in secondary business. You are
9 qualified it is my personal belief there is a
10 difference between PWR and BWR, and it is such that,
11 frankly, that is not the case.

12 And in addition, they have brought in Mr.
13 Bishop, formerly the head man from Beaver Valley,
14 again a PWR unit. I have got to believe that also
15 Mr. Ptak has left the project. It's my observation
16 to you that there is something disruptive going on
17 that is not in the best interest of this project,
18 and this is what I refer to.

19 Q. Okay. The last paragraph, paragraph 9
20 refers to independent subsequent assessments by
21 other agencies?

22 A. Um-hmm.

23 Q. Which other agency are you referring to?

24 A. Well, the only thing I have to refer to,
25 and I didn't bring it with me, there was a Canadian
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1 referred to a process whereby equipment was being
2 tested with a list of -- with a documented list of
3 deficiencies, such as the use of PLIKS, you may or
4 may not be familiar with that terminology --

5 Q. No, I am not.

6 A. They are punch list item reports, and
7 frequently somebody will say along the way, "Can we
8 run that piece of equipment without this and that
9 and the other component completed, or could we take
10 that component from this component and transfer on a
11 temporary basis to make this thing over here work."
12 So in essence, the terminology in the business is
13 gerry-rig.

14 Q. I understand that term.

15 A. So frankly, these steps are -- the
16 question as to what extent these steps were taken, a
17 third party at the site tells me that right now they
18 are running water around the system with welds
19 within middle boundary that are incomplete in an
20 attempt to meet the milestone for the reactive
21 vessel. They have been hustling to meet that
22 milestone. Now, if you understand the logistics of
23 how paper flows through the various agencies and how
24 you document quality, these circumstances impair,
25 unless you have, in my opinion, unless you have an
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1 established quantitative means to assess what is
2 going on, you retain the risk of having defects get
3 beyond that final step, and I -- I think I made that
4 point clear from the Shoreham.

5 Q. Would you like to take a break?

6 MR. LAZARUS: Why don't we go off the
7 record for a couple minutes?

8 (Discussion off the record.)

9 MR. LAZARUS: The time is 10:07 and we
10 will resume the interview.

11 BY MR. LAZARUS:

12 Q. In your second letter dated February 14,
13 1985, I would like to amplify some of the concerns
14 you brought to our attention there. In the second
15 paragraph of that letter, the second concern of that
16 letter, you refer to omission of these allowances
17 caused and propagated conditions adverse to safety
18 and quality.

19 A. Yeah.

20 Q. Is there anything you are referring to
21 there that we have not already discussed?

22 A. No, the essence of what that is referring
23 to, we have already discussed.

24 Q. For the record, in that third item, we
25 already discussed the CCCP program, but t et it in
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1 the interview transcript, would you describe that as
2 a pre-quality control inspection program performed
3 by the engineers?

4 A. Yes.

5 Q. The fourth paragraph refers to interaction
6 of programs at release for checkout and initial
7 testing being highly redundant, inconsistent, even
8 chaotic, and jeopardized documentation and tracking
9 of quality status. I would like to get a little
10 more information on that. I don't know if we
11 already discussed those items or not.

12 A. The quality inspection program, these are
13 something I discussed with Earl Conrad who is the
14 CPC coordinator, and also with some of the QC
15 individuals themselves, the transfer of information
16 from the CPC program, the documenting of which CPC
17 performed, referred to, which QC inspection formed
18 the documenting of, which became PLIRS within the QC
19 house and which subsequently became BPLIRS within
20 start-up agency, was -- I can best characterize it
21 that it was widely accepted, that it was a mess.
22 You know, I could -- everybody agreed it was a mess,
23 the problem was nobody ever said, "Let's get on with
24 it."

25 Get done with it and get out of here was
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1 the prevailing attitude at that time.

2 Q. You refer to these problems jeopardizing
3 documentation and tracking of quality status?

4 A. I'm sorry.

5 Q. It says jeopardized?

6 A. Yes.

7 Q. An example of documentation problems in
8 that area?

9 A. I refer again to the coming together of
10 these practices and the transferring, the
11 cross-referencing and transferring of data simply
12 left wide open. In fact, I used several times the
13 Nine Mile, in private conversations with Larry Brown,
14 you can drive a coach and four through the problems
15 we have in this program. I don't know if you are
16 familiar with that particular phraseology, it tends
17 to evolve through old England. Essentially, you
18 could drive a coach and four horses through the
19 problems. The problems were coming to like five
20 rivers meeting in a point, and the amount of
21 turbulence there was -- and again I refer to this in
22 the record, and had I not observed and had the
23 opportunity to observe these matters first and at
24 Shoreham and to show you the extent, again, at
25 Midland, I confess as a human being, I would have
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1 not been quite as concerned about them. Having
2 observed them at those two locations, I was trying
3 to convey to management, as a result of the
4 experience I had gained at those locations.

5 Q. In item 5, referring to equipment access
6 control being deficient --

7 A. Yes.

8 Q. What areas of the plants are you referring
9 to as far as access control?

10 A. Mainly switch gear and control panels.
11 The -- you could never get start-up to admit, or the
12 turnover group to admit or the utility or
13 construction, who used the panel last. One guy
14 would go in and say, "hey, that is not the way I
15 left it," and when I arrived this was a -- there
16 were several memorandum regarding, you know, who was
17 the last guy in the panel, who is the last guy in a
18 piece of switch gear.

19 Q. You are not referring to really security
20 measures?

21 A. No.

22 Q. As much as you are to control the work
23 process?

24 A. Controlling the work. There were repeated
25 concerns that became, being terminated and retrained.
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1 that doors were not being properly secured to
2 equipment, that sort of thing, that access was not
3 controlled in a manner consistent with good safety
4 and quality. There seemed to be a -- well, I think
5 that pretty well --

6 Q. was it different after the final QC
7 inspection, after a particular cabinet or piece of
8 equipment --

9 A. While I was there none or few significant
10 electrical components had been final inspected by QC.
11 It was my final concern that this process, unless
12 brought under control, would be a continuing process
13 because the evidence suggested, if you examine the
14 remaining scope of work, there would be many
15 attempts made to turn this equipment into the
16 testing phase before engineering could possibly be
17 done with all the various additions to those
18 components in a large number of cases.

19 Q. The next item, No. 6, refers to a senior
20 manager advising that only bootleg copies of
21 drawings might be available for weekend work, which
22 senior manager are you referring to?

23 A. I was in a meeting, and it was in -- I
24 will check my records and see -- the meeting, I
25 believe, was Wednesday, the 14th of March. I had
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1 been on the site at that point approximately 24
2 hours. The meeting was brown, Larry Brown,
3 superintendent of construction, John Ronco, Bill
4 Donahue, Steve Glover, Scott Delhausen and a fellow
5 called Blindly of L.D. Comstock, and as I recall,
6 there was a -- there was -- in order to meet a
7 milestone -- I think it was a non-safety related --
8 area, it was a water treatment system, and it was a
9 sketch. I believe the sketch was 2-530-015-128(B),
10 and Brown said in response to the fact that sketch
11 might not be available, he said, "Let's not get
12 paranoid here, keep it out of site when QC was
13 around."

14 I was sitting in the background, having
15 just arrived on the site. I am on the site busily
16 making notes, and the statement came up, and it
17 caught my by surprise and I made a note of it. But,
18 again, in the pressures of getting the work done, I
19 may have made reference to this quietly to Brown on
20 the side, but I don't recall that I confronted brown --
21 he was my immediate boss -- and I don't recall that
22 I confronted him and said, "That is a wrong move.
23 Even though it's not safety related, let's not
24 inject that in people's minds because it starts here
25 and goes beyond that." I recall thinking that at
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1 the time. I'm only here a day, let me not get --

2 Q. Do you know of it happening in a safety
3 related system where similar guidance was given?

4 A. No, I do not.

5 Q. Are you concerned that would water down
6 the system, and if they did it on a non-safety
7 related system they would consider doing it for
8 safety related systems?

9 A. That would certainly be a concern. That
10 would certainly be a concern.

11 Q. Item No. 7, a senior construction
12 representative personally marked up charges and
13 deletions to the engineering specification to
14 accommodate the schedule requirements.

15 A. Again, that was Mr. Brown, who was the
16 superintendent of construction. Engineering was
17 very reluctant to proceed in this direction, and
18 this did refer to -- this did relate to safety
19 related components, at least in part. It would have
20 to go.

21 Q. You refer to electrical switch gear
22 fasteners --

23 A. Again, it's a part of the record that is
24 contained in the record that I submitted to you, and
25 in detail.

1 Q. Could we take just a second to determine
2 exactly what system we are talking about there, or
3 which switch gear?

4 A. Yeah.

5 A. Okay. This was page 9 of reference 2.2,
6 paragraph 3.4, Gould vendor requirements.

7 Q. What switch gear is this?

8 A. Gould supplied.

9 Q. You don't know what system?

10 A. It was all over, it was many systems.

11 Q. What were the changes and deletions that
12 you are referring to, made by Mr. Brown?

13 A. It was an attempt to conform the
14 specifications to omit the requirement to check each
15 fastener that were being recommended by Gould, that
16 were required by Gould's manual.

17 Q. These are the torque checks that you're --

18 A. On the fasteners, yes. The thing that
19 astounded me about that is that one of the major
20 issues that it was -- that I was asked to address
21 while I was there was taking an outage on the
22 template and power so we could spend a weekend going
23 around tightening up on all the various fasteners on
24 the template and power systems so we would not have
25 a spurious outage and cause whatever number of

1 crossments in any given area to be subject to some
2 spurious outage, but yet we were attempting to
3 conform the specifications for permanent plant
4 equipment to say we don't have to go in and check
5 these fastners to make sure during shipping and
6 installation the fastners didn't fall short of the --
7 I felt it was proper to bring these concerns up to
8 management and the solutions that there were, as I
9 did suggest some solutions here. One of my
10 suggestions was, "hey, if we don't want to check
11 them all, why don't we at least get Gould to agree
12 to random sample, and if the random sample doesn't
13 work we will extrapolate from there." But the overriding
14 issue was if that doesn't meet the schedule, let's
15 do something else.

16 Q. I understand. You also indicate that site
17 engineering personnel were pressured, even
18 railroaded to accept the changes. Was there
19 resistance when Mr. Brown brought up these changes?

20 A. There were about seven weeks of resistance,
21 and the meeting was really the culmination of these
22 resistance. There were misgivings about it.

23 Q. And you're saying that Mr. Brown admitted
24 that he did not have the expertise in the field, and
25 still insisted on the deletions?

1 A. Yeah, he and I had a discussion regarding
2 this, and on this I would like to make it clear,
3 this is my recollection as part of the aftermath of
4 that meeting, you know, Brown said something to the
5 effect that -- well, I think it would be
6 inappropriate for me to attempt to recollect a
7 direct quote from Mr. Brown in a casual discussion,
8 but the essence of it is in there.

9 Q. I understand. Finally at Paragraph No. 6,
10 referring to the program and personnel changes
11 proposed by the management analysis corporation?

12 A. Um-hmm.

13 Q. You refer again to a senior manager, are
14 you referring to Mr. Brown?

15 A. No, I'm referring to Ron Wagner, the
16 construction manager. That meeting was attended by
17 Ben Carlson, Ron Wagner, Larry Brown, Mr. Olson of
18 engineering, Mr. Clements, and one other individual
19 whose name at the moment is escaping me, but it was
20 a late night meeting, and it was in the aftermath of
21 the meeting with Mr. Morrison, and closed door, if
22 you will, and the position that Mr. Wagner's
23 introductory statement was, "Let's just take a
24 moment to look at the commercial implications of
25 this. Let's just talk commercial."

1 To me, at this point, I was convinced that
2 this was indicative of a pervasive condition, that,
3 hey, we have a big job here, we're making a lot of
4 money, let us not blow it by -- if this is what
5 Morrison wants, let's give it to him.

6 Q. These are still, essentially, concerns
7 that they wanted to streamline the process or
8 eliminate steps to meet the schedule?

9 A. I asked repeatedly to sit down with
10 Morrison. I was born and raised in Scotland, and he
11 obviously was. I don't know if you met him, but I
12 suspect you have. I say this in jest with regards
13 to my nationality, but I figured quite candidly, I
14 could persuade Morrison, you cannot sit here and
15 responsibly draw schedules under the guise of
16 schedule enhancement process where you keep the end
17 dates fixed and reshuffle everything in between and
18 say that is what we are going to do, and you simply
19 cannot do that. Somebody turn my loose with Mr.
20 Morrison and I will make that clear. And, frankly,
21 everybody refused to step aside until I was in a
22 meeting on May the 2nd at five o'clock. Morrison
23 was finally chairing a meeting, and I believe I very
24 responsibly conveyed my concerns -- and that again
25 is on the record -- to Mr. Morrison, and he exploded
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1 on the spot, canceled the meeting, and then the
2 aftermath of that was I was removed from the job
3 within -- in working hours within three hours or --
4 in working hours, not in chronological hours, within
5 about three hours I was gone from the job.

6 Q. I think that we've already discussed the
7 last sentence of that, it said resulting index,
8 policy and personal attitudes were influenced by
9 this pre-condition, and in my judgment further
10 compromised adherence to acceptable quality
11 standards.

12 A. Yes.

13 Q. There is nothing new in that that we
14 haven't already discussed?

15 A. No.

16 Q. Is there anything, or any aspect of this,
17 either at Nine Mile Two or Shoreham that you don't
18 think we've addressed or your concerns have not been
19 surfaced?

20 A. No. I think we've covered -- we've
21 covered the matter here. I think, as indicated
22 earlier, I think that this document provides greater
23 development into that, and it had been, like I say,
24 my intention to read the first couple of pages of
25 this into the record, but it's obviously on the
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1 record as a part of this record so I don't know --
2 that would be redundant.

3 Q. I'll read into the record now, the title
4 of the document, which is Program Interdependencies,
5 Deficiencies Detrimental to Project Safety, Quality,
6 Schedule and Cost at Nine Mile Point No. 2 Nuclear
7 Power Station. The contents are, Part 1, Program
8 Interdependencies/Deficiencies, and No. 2, Related
9 Attachments and References. These matters are
10 compiled for review, action and correction by
11 appropriate agencies and parties, and as requested
12 for the record by the Nuclear Regulatory Commission,
13 W. Gordon Dick, [REDACTED] March 2, 1965.
14 This will be entered as an attachment to this
15 interview transcript.

16 A. These are mine.

17 Q. Yes, those are your copies. One other
18 item for the record before we close the interview,
19 you are requesting for anonymity. We maintain your
20 anonymity in view of this.

21 A. I can address that here. This also
22 applies to [REDACTED] but only to [REDACTED]
23 Both he and I do not request anonymity in regards to
24 this, we do not.

25 Q. Do not?
RUNFOLA & ASSOCIATES (614)445-6477

1 A. That is correct.

2 MR. LAZARUS: I don't have any more
3 questions. If there is nothing else you have, you
4 would like to bring to our attention, this will
5 conclude our interview.

6 THE WITNESS: I would simply like to
7 confirm that I would like to have a copy of the
8 transcript for review and for my records.

9 MR. LAZARUS: Certainly we will do that.
10 This concludes the interview. The time is 10:32.

11 - - - - -

12 Thereupon, the interview was
13 concluded at 10:32 o'clock a.m.

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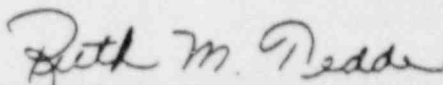
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1 CERTIFICATE

2 I, Ruth M. Tedde, a Notary Public in and
3 for the State of Ohio, do hereby certify that I took
4 the above captioned interview, and that the
5 foregoing transcript of such proceedings is a full,
6 true and correct transcript of my stenotypy notes as
7 so taken.

8 I do further certify that I was called
9 there in the capacity of a Court Reporter, and am
10 not otherwise interested in this proceeding.

11 IN WITNESS WHEREOF, I have hereunto set my
12 hand and affixed my seal of office at Columbus, Ohio,
13 on this 12th day of March, 1965.

14 
15 _____
16 RUTH M. TEDDE, a Notary
17 Public in and for the
State of Ohio.

18 My Commission expires May 20, 1965.
19
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25

CERTIFICATE OF OFFICIAL REPORTER

NO PAGE NO.

This is to certify that the attached proceedings before the
UNITED STATES NUCLEAR REGULATORY COMMISSION in the matter of:

NAME OF PROCEEDING: INVESTIGATIVE INTERVIEW (CLOSED MEETING)

DOCKET NO.: NONE

PLACE: COLUMBUS, OHIO

DATE: TUESDAY, MARCH 5, 1985

were held as herein appears, and that this is the original
transcript thereof for the file of the United States Nuclear
Regulatory Commission.

(Sigt) Ruth M. Tedde
(TYPED) Ruth M. Tedde

Official Reporter

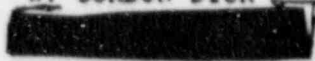
Reporter's Affiliation

PROGRAM INTERDEPENDENCIES/DEFICIENCIES
DETRIMENTAL TO PROJECT SAFETY, QUALITY,
SCHEDULE AND COST AT NINE MILE POINT NO.2
NUCLEAR POWER STATION

CONTENTS

1. PROGRAM INTERDEPENDENCIES/DEFICIENCIES
2. RELATED ATTACHMENTS AND REFERENCES

THESE MATTERS ARE COMPILED FOR REVIEW, ACTION
AND CORRECTION BY APPROPRIATE AGENCIES AND
PARTIES, AND AS REQUESTED FOR THE RECORD BY
THE NUCLEAR REGULATORY COMMISSION.

W. GORDON DICK


MARCH 2, 1985

1. PROGRAM INTERDEPENDENCIES/DEFICIENCIES

Mr. R. Kelly, Stone & Webster Engineering Corp. Vice President of Quality Assurance requested on March 7, 1984 that Mr. W.G. Dick transfer from Midland, Michigan to deal with serious problems at Nine Mile Point No. 2.

Collective experiences in the commercial nuclear industry, Attachment 2.21, especially at Shoreham, Attachment 2.7, provided a comprehensive basis to assess, as serious, the interdependent program deficiencies detrimental to project safety, quality, schedules and costs at Nine Mile Point No. 2.

An additional opportunity for W.G. Dick to observe the disastrous effects of failure to account for these program interdependencies occurred as Quality Assurance Consultant at Midland, Michigan. Attachment 2.19 illustrates interdependencies affecting quality confidence levels, product submittal rates and personnel resource requirements for the Midland implementation overview effort and adaptable to other project applications in the industry.

Details which identify specific examples of poor management practices seriously impairing project safety, quality, schedules and costs at Nine Mile Point No. 2 are contained in Attachment 2.2. These details were presented to representatives of Niagara Mohawk Power Corporation in follow-up to [REDACTED] letter to John G. Haehl, Attachment 2.1. Management recognition of poor controls is separately and independently confirmed by internal memorandum, Attachment 2.16. These separate confirmations of poor management and management controls are contrary to Niagara Mohawk's assertions, Attachment 2.20, in which Niagara Mohawk states that Stone & Webster's performance and actions are not detrimental to their project and ratepayers.

Observations and prior relevant experiences at Shoreham, Attachment 2.2, Section II, especially in connection with readiness assessment (83-02), demonstrated that the final quality of components systems and structures which are safety related and important to safety, was adversely affected by the quality levels submitted for inspection. At Shoreham, special quality assurance audits of finally accepted work identified a measurable level of defects in safety related components systems and structures.

By direct knowledge and participation at both projects, the conditions at Nine Mile Point No. 2 affecting safety and quality were consistently worse than those at Shoreham, for the reasons itemized previously to the NRC, Attachments 2.17 and 2.18 and as detailed in Attachment 2.2.

The preparation and use of schedules at Nine Mile Point No. 2 omitted or grossly misrepresented quality control steps, contractor interfacing difficulties and engineering/purchasing real time performance contributed to personnel pressures, fatigue and the misuse of programs to control quality at completion of construction (Attachments 2.2, 2.17 and 2.18).

The extent to which work was misrepresented is illustrated by Attachment 2.14. Management demands to maintain schedules and incentive milestones under these conditions caused errors, omissions, and program short cuts detrimental to safety and quality, Attachments 2.2 and 2.18.

These observations and concerns were separately documented by a major contractor in Attachment 2.10 and further independent observations are included in Attachments 2.8, 2.11, 2.12, and 2.13. Attachment 2.2 also contains specific references (e.g. References - 15, 20, and 22) which identify program interdependencies brought to management's attention which were ignored, rejected or resulted in disciplinary steps against the employee including transfer and dismissal.

Other attachments and references identify additional examples of poor management, imprudency and seriously impaired objectivity with adverse consequences for project safety, quality, schedule and cost. These also indicate an indifference for industry regulations on the part of senior managers and executives contrary to responsible thorough self-regulation.

2. RELATED ATTACHMENTS AND REFERENCES

2.1) Letter to J. G. Haehl Jr., C.E.O., Niagara Mohawk Power Corp. from [REDACTED] dated May 8, 1984 itemizing the causes for [REDACTED] resignation. (Also reference 5 of 2.3) below.)

2.2) Additional details presented to personnel of Niagara Mohawk Power Corp. representing J. G. Haehl Jr. by [REDACTED] and W. G. Dick on May 31, 1984 as requested follow-up to 2.1 above.

2.3) Letter to W. F. Allen, C.E.O. of Stone and Webster Engineering Corp. from W. G. Dick dated July 30, 1984 identifying reasons and requesting reversal of W. G. Dick's termination.

2.4) Letter to F. W. Ries, President of Stone and Webster Engineering Corp. from W. G. Dick dated May 19, 1984 documenting prior telephone discussions. (Also reference 1 to 2.3 above.)

2.5) Letter to W. G. Dick from E. F. Haslam, Vice President of Stone and Webster Engineering Corp. dated May 3, 1984 documenting cause of termination of W. G. Dick. (Also reference 2 to 2.3 above.)

2.6) Summary of certain facts that refute the documented cause for terminating W. G. Dick (Also reference 3 to 2.3 above.)

2.7) Letter to E. J. Brabazon, Stone and Webster Engineering Corp. Project Manager for Shoreham from W. J. Museler, Director, Office of Nuclear for the Long Island Lighting Co. (LILCO) dated November 30, 1983 summarizing W. G. Dick's contributions at Shoreham from 1979 to 1983. (Also reference 4 to 2.3 above.)

2.8) Memorandum to L. W. Brown, Supt. of Construction for Stone and Webster Engineering Corp. at Nine Mile Point No. 2 from W. G. Dick dated May 2, 1984 documenting observations and concerns affecting the Nine Mile Point No. 2 project. (Also reference 6 to 2.3 above.)

2.9) Letter to J. G. Haehl Jr. from [REDACTED] dated August 24, 1984 as follow-up to meeting on May 31, 1984, with Niagara Mohawk representatives. (See 2.2 above.)

2.10) Memorandum to R. L. Wagner, Construction Manager for Stone & Webster Engineering Corp. at Nine Mile Point No. 2 from A.

Fallon, Project Manager for L. K. Comstock, Electrical Contractor dated April 26, 1984 summarizing concerns relating to the Milestone Schedules for the project.

2.11) Memorandum to L.W. Brown, Superintendent of Construction for Stone & Webster Engineering Corporation from D.R. Friedrich, Chief Construction Engineer - Electrical, dated March 28, 1983 documenting problems with engineering support at that time.

2.12) Memorandum (hand written) to W.G. Dick, Electrical Superintendent for Stone & Webster Engineering Corporation, from [REDACTED] dated May 2, 1984 documenting schedule support difficulties.

2.13) Memorandum (hand written) to W.G. Dick, Electrical Superintendent for Stone & Webster Engineering Corporation, from [REDACTED] dated May 3, 1984 documenting schedule support difficulties.

2.14) Nine Mile Point No. 2 Dynamic Percent Complete Plan - Progress Update, dated August 19, 1984.

2.15) Project memorandum from W. Morrison dated August 31, 1984 describing NMP2 Project Controls Organization.

2.16) Project memorandum from J. G. Kappas and L. W. Brown dated October 1, 1984 identifying poor control of the work forces.

2.17) Letter to the Nuclear Regulatory Commission from W. G. Dick dated January 26, 1985.

2.18) Letter to the Nuclear Regulatory Commission from W. G. Dick dated February 14, 1985.

2.19) Computations to illustrate the interdependencies affecting quality confidence levels, product submittal rates and corresponding applied resource levels of manpower for implementation overview (C.I.D.) at Midland, Michigan dated February 13, 1984.

2.20) Letter from John Keib of Niagara Mohawk Power Corp. to [REDACTED] dated Sept 14, 1985.

2.21) Resume summary for W. G. Dick.

LETTER TO JOHN J. HAEHL JR. FROM
[REDACTED] DATED 5/8/84 DEALING
WITH INCIDENTS AND CONCERNS LEADING TO THE
RESIGNATION OF [REDACTED] ON 5/8/84

ADDITIONAL DETAILS

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I. IMPROPER TERMINATION OF COLLEAGUE

1. Mr. W. Gordon Dick was terminated for cause by Stone & Webster on Thursday, May 3, 1984.
2. The termination interview was conducted by Mr. J. Barrett, Mr. R. Wagner and Mr. L. Brown, in Mr. Brown's office.
3. The meeting lasted approximately five minutes.
4. Mr. Wagner said Mr. Dick's services were no longer required at Nine Mile 2 due to irreconcilable differences.
5. Mr. Barrett said Mr. Dick had just not done the job he had been sent to do.
6. Mr. Dick asked if Mr. Barrett would confirm this in writing.
7. Mr. Barrett said "No, that's your problem (Mr. Dick). You put too fucking much in writing".
8. Mr. Barrett got up and left the interview.
9. Mr. Wagner said he had nothing further to say and he left the meeting also.
10. Mr. Dick excused himself and left the meeting also, leaving Mr. Brown.
11. Mr. Dick had been at Midland, Michigan for 3 months prior to Nine Mile 2 and at Shoreham for four years prior to that.
12. At Shoreham, Mr. Dick was Manager of Planning and Scheduling, Electrical Supt. and Special Projects Supt. for Quality Accountability and matters relating to readiness assessment.
13. Mr. Dick is a degreed engineer with B.S. from Glasgow, Scotland (1965) and M.S. from Birmingham, England (1966).
14. Mr. Dick has eighteen years of power industry experience in management, engineering, design, construction, start-up and maintenance.
15. He has contributed to various phases of twelve power plants in Britain and America, arriving in the U.S. in 1968.
16. He had been at Nine Mile 2 for seven weeks commencing March 13, 1984.
17. During this mobilization and settling in period he lived at the Hilton Inn in Syracuse while searching for a permanent residence with his family.

18. Based on his prior experience, especially Shoreham, he observed significant problems with organization, personnel, scheduling and cost, quality and contractor control.
19. During his seven week tenure he reported these problems through the chain of command with recommendations for remedial action.
20. The ongoing re-organization and the initiation of the schedule "enhancement" apparently impeded effective communication of his concerns, as he was frequently ignored or brushed aside.
21. He prepared a comprehensive summary of his concerns in an attempt to get the attention of Mr. Brown and Mr. Wagner and others on May 1, 1984. (Reference 1).
22. On May 2, 1984 he attended a milestone schedule review meeting also attended by several key management personnel including Mr. Morrison
23. In this meeting Mr. Ubling stated that engineering support, FQC paralleling construction and contractor stand-alone schedules would not be included in the schedule review of individual activities but would be considered generically at the end of the meeting.
24. On this basis, and also being asked to treat rework and paper processing time similarly, the contractor personnel in attendance had difficulty giving dates and did not commit to the schedules.
25. Mr. Dick, addressing Mr. Morrison, pointed out that the assumptions set forth by Mr. Ubling made schedule commitments moot.
26. Mr. Morrison adjourned the meeting saying it was a waste of time and asked to see Mr. Ptak, Mr. Charleson and Mr. Wagner in his office.
27. Later at 5:30 pm Mr. Dick was called to a meeting with Mr. Wagner, Mr. Brown, and Mr. Brinley, assistant project manager for L.K. Comstock.
28. In this meeting, Mr. Wagner advised Messrs. Dick and Brinley that they displayed a negative attitude in front of Mr. Morrison and if they did not change this immediately Mr. Morrison wanted them replaced.
29. Mr. Dick stated that he certainly had not been negative and stated his strong objection to this as being offensive to his efforts and contributions over the past seven weeks.
30. He then presented Mr. Brown confidentially with his comprehensive summary of the problems he perceived are affecting the project, compiled on May 1, 1984. (Reference 1).
31. The meeting was adjourned and the following morning on May 3, 1984 Mr. Dick was terminated after 10 years and 2 days with Stone & Webster.

32. In the late afternoon of May 3, 1984 Mr. Dick attempted to call the Nine Mile 2 site to obtain acknowledgement that he could call SWEC Boston management to question and appeal his dismissal. After numerous attempts it was established that a telephone line problem existed and Mr. Dick decided to call Boston direct from the Syracuse Hilton.
33. Mr. Dick contacted the Deputy Director of Construction, Mr. E.E. Ehrlandson who had originally contacted Mr. Dick while in Midland and asked him to go to Nine Mile 2 and do the same job that he had successfully accomplished at Shoreham.
34. Mr. Ehrlandson told Mr. Dick he was aware of the matter but had to "crawfish" advising Mr. Dick that "As you know, around here there is a tendency to shoot messengers". Mr. Ehrlandson referred Mr. Dick to the Director of Construction, Mr. Warren Piper and suggested a call be made before 8:00 am Friday, May 4, 1984.
35. Mr. Dick called Mr. Piper on Friday May 4, 1984 at 7:40 am. Mr. Piper returned the call about one hour later. The discussion was amiable but Mr. Piper stated he was not aware of any of the details having simply directed Mr. Barrett to take care of the problem. Mr. Piper said Mr. Dick couldn't return to Nine Mile unless he (Mr. Piper) removed Messrs. Barrett, Wagner and Brown and he couldn't do that because he had to back his people there since, although he didn't know the details, he had to believe that they had good reasons for their actions. Mr. Piper said he had no objection if Mr. Dick wanted to talk with Frank W. Ries and stated to Mr. Dick that he couldn't help him because at this time openings in construction just didn't exist at his level.
36. Mr. Dick called Mr. Frank W. Ries at around 10:00 am on Friday May 4, 1984 and briefly explained the matter and conditions of his termination from his perspective offering additional details if Mr. Ries wished to be appraised. Mr. Ries said that Mr. Dick should call back late on Monday.
37. On the afternoon of Friday, May 4, 1984 Mr. Dick made arrangements for his family to fly to Columbus, Ohio to be with other family members. During his absence, a call was placed by Mr. Jack Williams, a senior construction manager associated with the Beaver Valley project. Mr. Dick did not return in time to take or return the call.
38. On Monday, May 7, 1984, on behalf of Mr. Dick, [REDACTED] returned the call to Mr. Williams. Mr. Williams advised that he was aware of Mr. Dick's situation and asked [REDACTED] to advise Mr. Dick of a "potential opportunity".
39. On Monday afternoon, as agreed with F.W. Ries, Mr. Dick called again. Mr. Ries told Mr. Dick he had talked briefly to the people at the site and they were very strong and adamant in their position. He stated he didn't see that he could do any more at this time but he was in fact scheduled to go to the site later in the week and would take a closer look at the documentation. Meanwhile he stated the matter had to stand as is.

40. Mr. Dick told Mr. Ries he continued to believe strongly that he had been unjustly and improperly terminated for raising serious concerns relating to the Nine Mile 2 project. However, he stated he now felt he had discharged fully his obligations to Stone & Webster in this matter and could, if he so chose, pursue other remedies of redress. He also advised Mr. Ries that [REDACTED] was also aware of the details of these matters and that [REDACTED] had specifically advised Mr. Dick that he (Mr. Dick) was not accountable for any actions which [REDACTED] might also take.
41. In view of the sequence of events and telephone calls at various management levels and taking into account the content and outcome of these calls, it now seemed appropriate to defer on the return call to Mr. Jack Williams until at least an outcome, if any of Mr. Ries' visit to Nine Mile 2.
42. In light of the apparent acquiescence of the Stone & Webster management in this matter, on May 8, 1984 [REDACTED] concluded his services at Nine Mile 2 could no longer be effective and he chose to resign immediately, return his family to Long Island and advise Niagara Mohawk of the events contributing to his resignation.

II. PRIOR OBSERVATIONS AND RELEVANT EXPERIENCES AT SHOREHAM

1. At Shoreham [REDACTED] spent two years in the electrical construction management department and four years in the planning and scheduling department, three of which were in the capacity of manager of planning and scheduling and finally assigned to the PSC prudency matters.
2. Mr. W.G. Dick spent four years at Shoreham reporting initially to the Vice President of Projects, then for one year as the manager of planning and scheduling, two years as Electrical Supt. and one year as Special Project Supt. for quality accountability and matters relating to readiness assessment.
3. In these various capacities Mr. Dick and [REDACTED] were aware of and participated in many aspects of management, scheduling, cost, and quality directly relevant to the completion of Shoreham from the late seventies through 1984.
4. At Shoreham, programmatic attempts were made to allow for Engineering, procurement, quality inspections, rework and system completion documentation.
5. In spite of these programmatic allowances, Shoreham proved to be, in part, the victim of optimism and wishful thinking, as the fuel load date slipped repeatedly.
6. Optimistic allowances for engineering changes and regulatory interpretations contributed to schedule deficits and cost escalations at Shoreham.
7. Optimistic assessments of procurement requirements especially for safety related materials and equipment contributed to schedule deficits and cost escalation at Shoreham.
8. Optimistic allowances for quality control inspections and re-inspections contributed to schedule deficits and cost escalation at Shoreham.
9. Optimistic allowances for rework and documentation processing time contributed to schedule deficits and cost escalation at Shoreham.
10. In conclusion, failure to allow for these factors at Nine Mile 2 can only result in management imprudence as schedules slip and costs escalate. Empathy may be afforded Shoreham in light of the TMI impact, emergency evacuation and emergency diesel generators. The same empathy is unlikely to be extended to Nine Mile 2.

III. IMPRUDENT MANAGEMENT

1. Management organization at Nine Mile 2 was and is diffuse and redundant causing multiple lines of reporting, communication and authority.
2. The electrical contractor is subjected to direct and conflicting communications from various levels of construction management and from various on-site groups.
3. The electrical contractor was allowed full credit for partially pulled cables and received payment and awards accordingly.
4. The electrical contractor was awarded over 85% of his unilateral award fee for the six months ending in March 1984. (Reference 2)
5. The electrical contractor accomplished approximately 55% of his schedule objectives during the same period.
6. The wide difference of greater than 30% is caused by "restraints" by others, and by the cumulative effect of unrealistic schedules.
7. The frequency, content, and structure of management meetings to chase the status of priority boundary identification packages (BIPS) contributed to the ineffective management of the work.
8. The selection of personnel for key management positions without prior knowledge or experience has contributed to the ineffectiveness of site management, at this phase of the project.
9. The electrical contractor is being subjected to simultaneous and thereby conflicting priorities and objectives including BIPS, milestones, bulk workplans, bow wave work plans and also his contractual obligation to manhour rates. The contractor also responds to SWEC incentive milestones.
10. The electrical construction management chart was submitted on April 4, 1984 (Reference 3) for management review and approval. Verbal approval was given on April 6, 1984 but personnel required for only partial implementation were notified on May 1, 1984 only two days before termination of Mr. Dick.
11. The 1984 work plan for L.K. Comstock signed and transmitted to A. Fallon by R.L. Wagner on March 6, 1984 contained a combination of bulk commodity objectives and BIP turnover objectives for cable pulling and terminations which were unrealistic and unachievable. The letter did not solicit any response (Response- N/A) and referred questions to the Supt. of Cost and Scheduling (Reference 4).
12. Sections I, IV, V, and VI of these additional details contain further examples of imprudent management and management practices, not included in this section to avoid duplication.

IV. RECOMMENDATIONS1. MANAGEMENT AND MANAGEMENT PRACTICES

- 1.1 Reduce organizational "gridlock" by consolidating construction management agency, reducing numbers of personnel and groups. (References: 1,3,5)
- 1.2 Focus contractor management through a principal construction management group on a discipline basis for effective control and accountability. (References: 1,3,5)
- 1.3 Objectively and thoroughly examine personnel experience and qualifications for key management roles (References: 1,6)
- 1.4 Re-structure major contracts including methods of measuring progress for payment and incentive fees to align with the principal project objectives of schedule and quality installation. (References: 1,7,18).
- 1.5 Evaluate contractor organization formats to ensure these are compatible consistent with project needs for optimum communications and direction. (References: 1,7)
- 1.6 Implement effective and workable methods of measuring work progress to reduce the known wide inconsistencies between, for example, CMS and ECSIS programs. (References: 1,8,9)
- 1.7 Evaluate and streamline the interactions occurring among the various construction completion (CCCP), quality inspection (QCIR) and punch list completion programs (PLER) to avoid the personnel and documentation incumbrances in existence. (References: 1, 10)
- 1.8 The introduction and implementation of key management directives such as the schedule enhancement program must be communicated clearly, widely and uniformly to avoid non-communications, mis-communications and other occurrences causing ineffectiveness. (References: 1,11)

IV. RECOMMENDATIONS

2. SCHEDULES AND SCHEDULING METHODS

- 2.1 Realistic schedules must be drawn and implemented taking full account of engineering, procurement, contractor interfacing, WQC inspections, rework and paper work/documentation. (References: 1,12,13,15)
- 2.2 Scheduling methods must be developed much further than time allowed during the rapid implementation of the schedule enhancement program, to assure that the scope, logic, and objectives are understood by all. (References: 1,11)
- 2.3 The schedule enhancement program could and should be greatly simplified thereby improving schedule awareness and commitments. The use of four connected schedule "phases" described in Section V could be reduced to three and even two "phases". (References: 1,11,14)
- 2.4 Clear and simple direction must be developed, issued and implemented on how to track, record and report schedule progress on a quantity basis. To avoid duplication, redundancy and error this method should be compatible with the quality completion reporting methods and the cost reporting system should also be aligned to this. (References 1,11,14)
- 2.5 Methods of tracking and reporting scope changes, schedule restraints, engineering revisions and rework scope must be considered and implemented, otherwise existing schedules in some critical areas could become quickly unrepresentative of the actual work scope and management visibility is lost. (References: 1,11,14,16,17)

IV. RECOMMENDATIONS3. OTHER RECOMMENDATIONS

- 3.1 W.G. Dick recommended that R. Dewald of L.K. Comstock be utilized from Shoreham at least during A. Fallon's vacation period but also as a possible permanent project manager reporting to A. Fallon as senior project manager. L.W. Brown discouraged this, saying Dewald reminded him of a bull in a china closet. (References 7,19).
- 3.2 W.G. Dick strongly recommended that Mr. Brown re-evaluate the prudence of issuing his weekly memorandum on recovery of system negativity, especially during the period of schedule re-appraisal brought about by the schedule enhancement program due to the multiplicity of conflicting schedule signals. (References: 18, 20)
- 3.3 W.G. Dick recommended to L.W. Brown on March 30, 1984 that the second shift BIP activity proposal by F. Vonholtz could only add further confusion to the contractor coordination difficulties and should not be implemented. (References: 21)
- 3.4 Gould vendor requirements for torquing accessible fasteners on electrical equipment in their supply was an unresolved problem for more than six weeks during March, April, and into early May. W.G. Dick recommended several resolutions including random sampling. The requirement was finally to be deleted in May. (References: 22)
- 3.5 W.G. Dick recommended to L.W. Brown that many problems arising with engineering and other disciplines required prompt higher management action to avoid delays. L.W. Brown agreed but later had second thoughts apparently due to the frequency and difficulties in resolving these problems. (References: 5, 23)
- 3.6 Cable pulling recommendations were compiled by W.G. Dick and sent to L.W. Brown by IOM on April 16, 1984 to address the acceleration of the bulk cable pulling program. This recommendation, like others, seemed to get lost in the overall management evolutions during April. (References: 24)
- 3.7 Completion and inspection of raceways prior to cable pulling appeared to be increasingly restrictive to the schedule and quantity objectives of the electrical contractor. W.G. Dick recommended these restrictions be eased prior to and again in writing on April 16, 1984. L.W. Brown resisted this recommendation. (References: 24)
- 3.8 Recommendations to resolve a controversy over pulling sleeve locations were submitted to L.W. Brown by W.G. Dick on April 17, 1984 following a meeting to address proposed EADCR C 02362. The recommendation contributed to the cancellation of the EADCR. A different solution to pulling tensions however, must be considered to achieve pulling targets and manhour rates. (References: 25, 26)

- 3.9 Recommendations for prompt re-organization and consolidation of the electrical construction management group was submitted to L.W. Brown on April 4, 1984. Personnel were not made available until April 30, 1984 to implement this, only 3 days before Mr. Dick was terminated. (References: 3)
- 3.10 Problems and recommendations such as the examples exhibited by reference 27, etc. were frequently encountered and submitted for resolution to the responsible party with copies to management. These seemed not to be welcomed by the recipients even though project schedules were slipping by the hour, the day, the week and by the month while problems went unresolved. (References: 27,28,29)
- 3.11 Recommendations were made by W.G. Dick to L.W. Brown to address engineering problems thoroughly in advance in writing. This was agreed upon. A detailed meeting agenda was prepared by W.G. Dick with advance time for engineering review. The meeting was held on Monday, April 30, 1984 at 10:00 am. Later, on May 3, 1984, L.W. Brown stated that W.G. Dick had not handled this matter as L.W. Brown would have liked. (References: 30)
- 3.12 During April, on several occasions in meetings with L.W. Brown and again with L.W. Brown and T. Stanzione, W.G. Dick recommended that he be permitted to raise his management and scheduling concerns direct to Mr. W. Morrison. Mr. Brown refused, saying that Mr. Morrison just "tunes out" everybody and everything he doesn't agree with. In these meetings, they agreed that a lot of problems existed with the schedule enhancement effort that they did not like but had to go along with. (References: later)
- 3.13 During March and April 1984, Mr. Brown stated on several occasions that Mr. W.G. Dick, as the Electrical Supt., was fully responsible for L.K. Comstock. Mr. Dick recommended on these occasions that Mr. Brown examine more closely the reality of this matter in view of the multiple groups and several management levels dealing directly with L.K. Comstock. This matter remained unresolved throughout Mr. Dick's time at Nine Mile 2. (References: 31)
- 3.14 Mr. Morrison, Mr. Wagner and others held weekly meetings each Thursday with L.K. Comstock. Mr. Dick recommended to Mr. Brown on several occasions during March and April 1984 that he be permitted to attend these meetings if indeed he was fully responsible for the electrical contractor. Mr. Brown agreed this was a problem but refused Mr. Dick's recommendation, saying that even Mr. Wagner had to fight to get into this meeting. Mr. Dick cautioned Mr. Brown on these occasions that his accountability for the contractor was diminished by this. (References: 31)
- 3.15 In March, 1984 Mr. Brown advised Mr. Dick that Mr. Dick was an "ex-officio" member of the L.K. Comstock unilateral fee award committee. Mr. Dick stated that this seemed completely inconsistent with being "fully responsible" for the electrical contract. Mr. Brown said he agreed but could not do any more about this since he had tried many times before, to no avail. (References: 32)

3.16 On Friday, March 30, 1984 with Mr. Dick's repeated insistence, he was invited to attend the incentive fee meeting in R. Wagner's office. Mr. Dick noted that previous quality and schedule weighting factors showed an unfavorably heavy bias in favor of scheduling over quality of almost 3:1. Mr. Dick recommended this be changed. Mr. Wagner, noting a prior commitment to the NRC C.A.T. concerns, agreed that these should in fact be equalized. (References: 33)

V. UNREALISTIC SCHEDULES AND SCHEDULING METHODS

1. Milestone schedules were drawn during the schedule enhancement program without detailed engineering input nor allowing for the existing engineering track record.
2. The milestone schedules were drawn without detailed purchasing input nor allowing for the existing procurement track record.
3. The milestone schedules were drawn without realistic consideration for contractor interfaces.
4. The milestone schedules were drawn without input of or realistic consideration of the FQC inspection of category I safety related equipment.
5. The milestone schedules were drawn without realistic consideration for rework, especially that which is encountered or discovered during completion, turnover phases.
6. The milestone schedules were drawn without realistic consideration of significant vendor modifications still outstanding.
7. The milestone schedules were drawn without full consideration given to detailed notes and concerns raised by the electrical contractor and by construction management representatives.
8. Milestone schedule dates, durations, etc. submitted by the contractor were changed after the meeting with the contractor without supplemental discussion and concurrence.
9. In summary, the milestone schedules were drawn unrealistically and management contrived to extract commitments on these schedules in a fashion that can be likened to "railroading".
10. The schedule enhancement program is incomplete, vague, or not defined on how the four major parts of the program will interact for control, tracking, and progressing the work.
11. The schedule enhancement program in calling for four major segments (milestone, area/system, thirteen week look ahead and three week look ahead) conceives that separate groups will manage and take over these separate segments.
12. This means that several groups of individuals require to pickup and be cognizant of the work while it is in their "phase". The sequential "programming" of new people and brains as the work passes through these phases is highly redundant, expensive, and has a high potential to be unworkable.

VI. POSSIBLE ACTIONS AND APPARENT ATTEMPTS TO COVER-UP

1. The development and repeated issuance of unrealistic schedules can result from and can be interpreted as an attempt to cover-up the final completion date and final total cost of Nine Mile 2 under the guise of optimism, aggressiveness and ambitious thinking.
2. The open threat to W.G. Dick and R. Brinley on May 2, 1984 that they have displayed a negative attitude and will be replaced if they do not change this attitude is a possible action and an apparent attempt to cover-up the development of unrealistic schedules at Nine Mile 2 using unrealistic methods.
3. The dismissal of W.G. Dick on May 3, 1984 under circumstances existing during April 1984 involving re-organization and schedule enhancement is a possible action and an apparent attempt to cover-up the development of unrealistic schedules at Nine Mile 2 using unrealistic methods.
4. The acknowledgement by the SWEC deputy director of construction that he had to "crawfish" since "as you know, around here there is a tendency to shoot messengers" is indicative of conditions which can result in attempts to cover-up unsatisfactory conditions and methods at Nine Mile 2.
5. The assertion by the senior construction manager that W.G. Dick has a problem because he puts too much in writing is indicative of conditions which can result in attempts to cover-up unsatisfactory conditions and methods at Nine Mile 2.
6. Mr. Brown's assertion that Mr. W. Morrison "tunes-out" everyone and everything he doesn't accept or agree with is indicative of conditions which can result in attempts to ignore and cover-up unsatisfactory conditions and methods at Nine Mile 2.
7. Mr. Jack Williams' statement to [REDACTED] on Monday, May 7, 1984 that Mr. W.G. Dick should be aware of a "potential opportunity" after Mr. Piper's statement that construction positions within SWEC were not available at Mr. Dick's level is indicative of a possible attempt to cover up unsatisfactory conditions and methods at Nine Mile 2.
8. Other factors and incidents including the initial refusal to transfer [REDACTED] from Shoreham to Nine Mile 2 are indicative of possible attempts to prevent the exposure of unsatisfactory conditions and methods.

A. LIST OF REFERENCES

1. Summary of personal observations and concerns relating to the Nine Mile 2 Project dated May 1, 1984.
2. Unilateral award fee schedule assessment for the electrical contractor for the six month period ending March, 1984.
3. Interoffice memorandum to L.W. Brown from W.G. Dick dated April 4, 1984, Subject: Electrical Construction Management Organization.
4. L.K. Comstock 1984 Work Plan signed by R.L. Wagner on March 6, 1984 and addressed to A. Fallon of L.K. Comstock.
5. Personal notes by W.G. Dick of meeting with L.W. Brown in his office on March 19, 1984 at 4:45 pm.
6. Personal notes by W.G. Dick of meeting with L.W. Brown in his office on Monday, April 16, 1984 at 11:00 am.
7. Personal notes and recollections by W.G. Dick of meeting with L.W. Brown in his office on March 21, 1984 at 2:30 pm.
8. Personal notes and recollections by W.G. Dick of meeting with D. Rogers of Cost Dept. in W.G. Dick's office on March 16, 1984.
9. Personal notes and recollections by W.G. Dick of meeting with L.W. Brown during his staff meeting at 4:00 pm on March 16, 1984.
10. Verbal recommendations made to E. Conrad and separately to L.W. Brown as a result of the quality accountability meeting of April 6, 1984.
11. Memo (hand written) from [REDACTED] to W.G. Dick dated May 2, 1984 on the review of the schedule enhancement program.
12. Memorandum from A. Fallon of L.K. Comstock to R. Wagner dated April 26, 1984, Subject: Milestone Schedules.
13. Memo (hand written) to W.G. Dick from [REDACTED] dated May 3, 1984, Subject: Schedule Support, Summarizing Meeting with W. Morrison et al on May 2, 1984.
14. Notes and recollections by W.G. Dick of meeting in his office on April 3, 1984 at 1:00 pm with Blain Nickerson, R. Kuzawski, and W. Czelusniak.
15. Interoffice Memo (IOC) from W. Czelusniak to O. Ubling dated April 6, 1984, Subject: 4.KV Milestone Schedule Commitments and General Observations.

16. Interoffice Correspondence (IOC) from W.G. Dick to T. Stanzione dated April 16, 1984, Subject: Data Bases to be Used for Scheduling Electrical Work Remaining.
17. Interoffice Correspondence (IOC) from D. Roberts of JCI to L.K. Comstock, with copy to R. Kuzawski and redirected by W.G. Dick to L.W. Brown and T. Stanzione on April 26, 1984 at 6:30 am.
18. Interoffice Memorandum to L.W. Brown from W.G. Dick dated April 10, 1984, Subject: Item 1 of L.W. Brown Memorandum dated April 5, 1984 - System Turnover.
19. Memorandum from A. Fallon to R. Wagner in April (date unknown) notifying Mr. Wagner of Mr. Fallon's vacation plans.
20. Interoffice Memorandum dated March 22, 1984 from L.W. Brown to distribution identifying priority BIPS with negative slack of almost four months and calling for working seven days a week, 24 hours per day.
21. Interoffice Memorandum from F. Vonholtz to L.W. Brown dated March 28, 1984, Subject: Second Shift BIP Activities.
22. Hand Written summary of Gould vendor manual requirements by J. Ronco dated April 9, 1984.
23. Example of problem referred for information to L.W. Brown, IOC from J. Trimble to T. Landry dated April 9, 1984 and sent to L.W. Brown by W.G. Dick on April 10, 1984.
24. Interoffice Memorandum from W.G. Dick to L.W. Brown dated April 16, 1984.
25. Hand Note to L.W. Brown from W.G. Dick dated April 17, 1984 to address pulling sleeves.
26. Voided E&DCR C02362.
27. IOC to D. Herman from J. Trimble dated April 17, 1984 referencing N&D 7140.
28. IOC from R. Brinley to T. Landry dated April 11, 1984 referencing spared cables.
29. IOC from W.G. Dick to engineering, management and scheduling (date unknown) to address 130 conduits on hold in the reactor building at el 328'.
30. Agenda for meeting with engineering called by W.G. Dick for April 30, 1984 including supplementary agenda issued for a future meeting.

31. Personal notes and recollections by W.G. Dick of meeting with L.W. Brown in his office on Thursday, March 29, 1984 at 5:00 pm.
32. Personal notes and recollections by W.G. Dick of meeting with L.W. Brown in his office on Friday, March 23, 1984 at 11:00 am.
33. Personal notes and recollections by W.G. Dick of meeting in R.L. Wagner's office on Friday, March 30, 1984 at 9:30 am.

W.F. Allen, Chairman & Chief Executive
Stone & Webster Engineering Corp.
245 Summer Street
Boston, MA 02107

July 30, 1984

Subject: Termination of W. Gordon Dick

Dear Mr. Allen:

I was terminated by Stone & Webster Engineering Corp. on May 3, 1984 at the Nine Mile 2 project while assigned as Assistant Superintendent of Construction - Electrical. I firmly believe my termination was unjust and improper as stated in my letter to F.W. Ries on May 19, 1984, Reference 1. I have not received a response from Mr. Ries. As a former employee of ten years dedicated service I consider this also improper, and refer this matter to you for your attention.

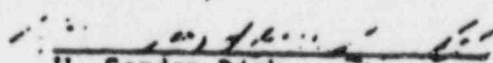
The cause of my termination was documented by SWEC as "Unsatisfactory Performance" in Reference 2. I strongly reject this characterization of my efforts at Nine Mile 2 and of my tenure with SWEC and summarize to you some of the facts which support this, Reference 3.

The actions taken against me are a disservice to Niagara Mohawk, the system ratepayers in New York and the construction industry, and undermine the SWEC corporate goals to be the finest in the world. Last but not least, SWEC has injured my career and livelihood and by direct extension has threatened the welfare of my family.

I sincerely assure you that neither malice is held nor revenge sought by me in this matter. I request and expect simple justice by your reversal of my termination.


I look forward to your full and timely response, however, no acknowledgement or response by Friday, August 31, 1984 will identify your personal and corporate concurrence with my termination.

Very Truly Yours,


W. Gordon Dick

WGD/tld

LIST OF REFERENCES (ATTACHED)

1. Letter from W.G. Dick to F.W. Ries dated May 19, 1984.
2. Letter from E.F. Haslam Jr. to W.G. Dick dated May 3, 1984 with attachment, received June 19, 1984.
3. Summary of certain facts that refute the causes for terminating W.G. Dick.
4. Letter from W.J. Museler to E.J. Brabazon dated November 30, 1984.
5. Letter from  to J.G. Haehl, Jr. dated May 8, 1984.
6. Memorandum from W.G. Dick to L.W. Brown dated May 2, 1984. (Attachment dated May 1, 1984 - original to L.W. Brown.)

F.W. Ries, Executive Vice President
Stone & Webster Engineering Corp.
245 Summer Street
Boston, MA 02107

May 19, 1984

Subject: Personal Termination at Nine Mile 2 on May 3, 1984.

References:

- (1) SWEC Travel/Transfer Form (green sheet) dated May 4, 1984.
- (2) Telephone conversation with you on Friday, May 4, 1984.
- (3) Telephone conversation with you on Monday, May 7, 1984.

Dear Frank:

I received the SWEC notification form (Reference 1) yesterday Friday, May 18, 1984, signed by E. Erhlandson on behalf of J.F. Barrett. This is the first written notification received which relates to my termination.

I choose to respond to this notification by re-stating in writing the essence of our telephone conversation on May 4 and May 7, 1984 (References 2 and 3 above).

I have been unjustly and improperly terminated by SWEC after only seven weeks at Nine Mile 2. This period was largely a mobilization phase which included searching for a home while residing in a hotel with my wife and children. The factors which led to my termination are as follows:

1. I observed the application of imprudent management methods at Nine Mile 2. I notified our management through correct chain of command including remedial recommendations but this seemed only to hasten my termination.
2. I observed the existence of redundant and ineffective management organization, and during April observed the fitful and poorly coordinated evolution of a revised organization which exhibited the potential for even greater redundancy and ineffectiveness. I notified management of my concerns through correct chain of command including remedial recommendations but again, this seemed only to hasten my termination.
3. I observed the preparation of unrealistic project schedules using unsound scheduling methods and assumptions. I notified our management through correct chain of command including remedial recommendations but again, this seemed only to hasten my termination.
4. I raised a serious concern, through the correct chain of command, that these conditions could expose Stone & Webster to significant risk. This concern was expressed also to me by [redacted] whose perceptions of these matters I respect based on his prior contributions as a Stone & Webster employee. Again, this seemed only to hasten my termination.

On Thursday, May 3, 1984 in a meeting with Mr. Barrett, Mr. Wagner and Mr. Brown lasting all of five minutes, I was advised we had "irreconcilable differences", "You have not done the job you were sent to do", and "One of your problems is that you put too f__ing much in writing". I was an employee of Stone & Webster for ten years and two days on the date of my dismissal. I have always strived to contribute my very best, aggressively seeking to uphold our corporate goals, to be the finest in the world at what we do.

The imprudence of the unjust and improper actions taken against me is best illustrated in a comment made to me by telephone on May 3, 1984 when I called Boston in the late afternoon to question the matter of my termination. The gentleman with whom I spoke stated that he was aware of my termination but had to "crawl" since, "as you know, around here there is a tendency to shoot messengers". I believe and I am confident you agree, that the finest companies cannot sustain themselves by resorting to practices attributed to medieval times.

In conclusion, I recommend the following as originally expressed in our first telephone conversation:

1. That I present to you my very serious concerns relating to the imprudent and unrealistic methods used at Nine Mile 2.
2. That you initiate immediately an objective review of the circumstances relating to my termination to address my firm belief that this was unjust and improper.

I am very proud of my ten years with Stone & Webster and I remain ready and willing to look to the future including a renewed association when these matters are resolved. I do not intend to dwell on the past.

I look forward to your response, and trust you will respond at your earliest convenience.

Very Truly Yours,

Original signed by W.G. Dick

W. Gordon Dick

WGD/cld

STONE & WEBSTER ENGINEERING CORPORATION



245 SUMMER STREET, BOSTON, MASSACHUSETTS

ADDRESS ALL CORRESPONDENCE TO P.O. BOX 2325, BOSTON, MASS. 02107

W U TELEX 94-0001
94-0977

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DESIGN
CONSTRUCTION
REPORTS
EXAMINATIONS
CONSULTING
ENGINEERING

W. Gordon Dick

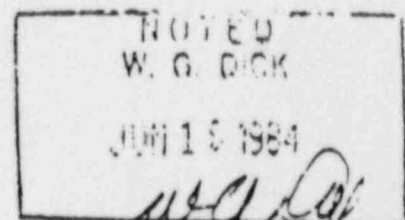
May 3, 1984

This letter refers to your separation from our employment and is issued as a reminder of the fact that, as a part of your relationship with the Company, you entered into an Invention and Confidentiality Agreement.

You are aware that as applied to confidentiality, the provisions of that Agreement survive the termination of your employment, and we feel sure that in any subsequent employment connections, you will respect both the letter and intent of that document.

Very truly yours,

E. F. Haslam, Jr.
Vice President and
Senior Personnel Manager



TERMINATION OF EMPLOYMENT

4 110.0A

ORIGINAL
EMPLOYEE'S COPYSTONE & WEBSTER ENGINEERING CORPORATION
245 SUMMER STREET, BOSTON, MASSACHUSETTS 02107

EMPLOYEE'S NAME <u>W. Gordon Dick</u>		DATE <u>May 3, 1984</u>
POSITION <u>Asst Supt Const</u>		SS ACCOUNT NO <u>[REDACTED]</u>
LOCATION OF EMPLOYMENT <u>Lycoming, New York</u>		J. C. NO. <u>#12187.00</u>
DATE STARTED WORK <u>5-1-74</u>	LAST DAY WORKED <u>6-1-84</u>	
REASON FOR TERMINATION <u>Unsatisfactory Performance</u>		

TO INSURE PROMPT PAYMENT OF UNEMPLOYMENT BENEFITS THIS FORM SHOULD BE PRESENTED BY YOU TO THE EMPLOYMENT OFFICE WHEN YOU FILE A CLAIM FOR SUCH BENEFITS.

IN THE EVENT YOU DO NOT FILE A CLAIM FOR UNEMPLOYMENT BENEFITS IMMEDIATELY, YOU SHOULD RETAIN THIS FORM FOR AT LEAST SEVENTEEN MONTHS. IF, DURING THIS PERIOD, YOU FILE A CLAIM THE FORM SHOULD THEN BE PRESENTED AT THE EMPLOYMENT OFFICE.

CONVERSION RIGHTS WITH RESPECT TO GROUP INSURANCES FOR WHICH THE EMPLOYEE MAY HAVE BEEN ENROLLED DURING EMPLOYMENT

BLUE CROSS/BLUE SHIELD — MAJOR MEDICAL

Employees enrolled for these coverages at the time employment terminates remain covered under the Stone & Webster Group contract for the remainder of the month within which the termination of employment occurred. Such employees will receive an invoice from the Blue Cross/Blue Shield organization approximately two months after employment terminated covering a three-month period commencing on the day following the last day of the month within which employment terminates. If this invoice is paid within the time allowed by Blue Cross/Blue Shield the terminated employee's coverage is regarded as continuous (no new waiting period will be required). However, they are automatically set up on the lowest Blue Cross \$30 a day Plan. They may increase their coverage by filling out a health statement.

GROUP LIFE INSURANCE

Employees enrolled for this coverage may convert their Group insurance to any form of ordinary life insurance offered by Metropolitan Life Insurance Company without a physical examination if application is made personally at any Metropolitan Life Insurance Company office within 31 days from the last day worked as set forth above.

SHORT TERM CASH SICKNESS INSURANCE

LONG TERM DISABILITY INSURANCE

GROUP ACCIDENT INSURANCE

TRAVEL ACCIDENT

None of these coverages can be converted from a Group to an individual policy

STONE & WEBSTER ENGINEERING CORPORATION

SUMMARY OF CERTAIN FACTS THAT
REFUTE THE CAUSES FOR TERMINATING
W.G. DICK

1. I was assigned to Shoreham for four of my ten years with SWEC, until November 30, 1983. Shoreham has characteristics common to Nine Mile 2. My assignment and accomplishments at Shoreham are summarized in Reference 4.
2. Mr. Kelly of QA then Mr. Erlandson asked me to go to Nine Mile and accomplish the same results I had achieved at Shoreham. While at Nine Mile I dedicated my efforts to this.
3. Prior to this I had been advised by direct knowledge of a third party that Mr. Wagner and Mr. Brown opposed my involvement at Nine Mile 2. I raised this with Mr. Erlandson and he responded that Mr. Wagner had little to say in the matter. This alerted me to a volatile and possibly adversary situation and confirmed the direct knowledge of a third party.
4. I was at Nine Mile 2 for seven weeks, mainly a settling-in phase searching for a permanent residence on weekends and evenings while residing in a hotel with my wife and two children. To effect rapid mobilization I worked mainly from 6:00 AM to 6:00 PM and later, rising at approximately 4:00 AM and not returning to my family until after 7:00 PM.
5. The period of my assignment at Nine Mile 2 coincided with major organizational changes and schedule "enhancement" efforts. These efforts were superimposed on the ongoing work effort which included attempts to recover existing significant schedule deficits by working six and even seven days per week. The convergence of these efforts produced a tragic situation best described as management "gridlock" and formed a back-drop totally inappropriate, unjust, and improper upon which to terminate a new arrival in a complex management role.
6. During this period I observed major problems which I communicated to my immediate supervisor including specific recommendations for action. Many of these were rejected, ignored or criticized. I referred these matters to Mr. F.W. Ries (Reference 1) without response as stated previously. As you are aware, these matters were also communicated to Niagara Mohawk by [REDACTED] Reference 5.
7. On several occasions, when discussing these matters with L.W. Brown, my immediate supervisor, he stated he had released or neutralized several project personnel at peer levels, naming R. Reidel, N. Sedgeley, J. McLaughlin and J. Ronco as ineffective. These statements appeared to be a veiled threat to me and a mark of significant inexperience on Mr. Brown's part. I have worked directly with three of these individuals.

8. On May 2, 1984, following a milestone schedule review meeting, Mr. R. Wagner called a meeting attended by a non-SWEC employee, R. Brinley of L.K. Comstock. He threatened to have me replaced and accused me of being negative in the schedule review meeting attended by W. Morrison. I assured Mr. Wagner I had not been negative but he rejected this. I offered to explain my position to Mr. Morrison and this was also refused. At this point I asked to see Mr. Brown in private and presented him with a summary of serious concerns compiled by me on May 1, 1984 and previously discussed with Mr. Brown to no avail (Reference 6).
9. I was terminated on May 3, 1984 in a meeting with Mssrs. Barrett, Wagner, and Brown which lasted about five minutes. Mr. Wagner stated only that we had "irreconcilable differences" upon which he did not elaborate. Mr. Barrett said I had not done the job I had been sent to do and that I had put too much in writing.
10. Within the period May 3 to May 7, 1984 I contacted Mr. Erlandson, Mr. Piper, and Mr. Ries. Mr. Erlandson said he had to "crawfish", Mr. Piper said he did not know the details but had to support his people anyway and Mr. Ries said he was interested in what I had to say but so far I have not been contacted on these matters.



LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

P.O. BOX 804, NORTH COUNTRY ROAD • WADING RIVER, N.Y. 11792

November 30, 1983

Mr. E. J. Brabazon
Project Manager
Stone & Webster Engineering Corp.
P.O. Box 2325
Boston, MA 02107

Reassignment of Mr. W. G. Dick
SHOREHAM NUCLEAR POWER STATION - UNIT 1
WO10-48923

Dear Ed:

Tomorrow Mr. W. Gordon Dick, Stone & Webster Assistant Superintendent of Construction, is being reassigned to Midland from the Shoreham Project. This will conclude four (4) years of extremely dedicated and productive performance on the Shoreham Project for Mr. Dick.

The purpose of this letter is to formally thank Mr. Dick for his contributions to this project, and, since he has been working with and for LILCO Management for the past four (4) years, to draw to Stone & Webster's attention, the significance of Mr. Dick's work at Shoreham. His capability and flexibility has resulted in three (3) very diverse, and very successful, assignments over the past four (4) years:

1. Manager of UNICO Planning and Scheduling
2. Electrical Superintendent of Construction
3. Quality Accountability Task Force Leader

All of these assignments required innovative management techniques, rapid recovery plans for pre-existing problems, and major interfaces with contractors, quality organizations, and the NRC. With respect to Mr. Dick's assignment in the Planning and Scheduling area, he took over the Planning and Scheduling group at the implementation stage of a new planning and scheduling system as the Plant entered the Startup testing phase. He not only successfully implemented the planned program, but significantly enhanced it through the addition of his own innovative techniques; principal among which was the computerized restraint program, which enabled virtually real time assessment and corrective action to be employed on Construction restraining items. In 1981 the Electrical Construction effort was experiencing problems and Mr. Dick was assigned as the

November 30, 1983

Page Two

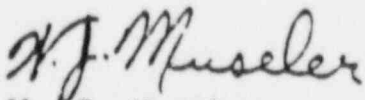
E. J. Brabazon

Reassignment of Mr. W. G. Dick

Electrical Superintendent (even though he is a mechanical engineer by trade) and, in this case, Mr. Dick utilized a number of innovative management techniques in order to "turnaround" the Electrical problems and schedule slippage was significantly reduced. He was able to meld the Construction Management and contractor efforts into a cohesive and successful construction program in the Electrical area. Finally, subsequent to the NRC's extensive Readiness Assessment Team (RAT) inspection last January, Mr. Dick was called upon to develop and implement a Quality Accountability Program to demonstrate to the NRC that Shoreham's overall QA program was achieving its intended function, that is satisfactory hardware installation in the field. Very rapid program development and implementation was required in order to satisfy NRC concerns and to provide LILCO with the necessary Quality ammunition in the Licensing arena. Again Mr. Dick met the challenge and by mid-1983, the program was so successful that the NRC itself indicated that the extraordinary measures employed could be eliminated.

I have taken the time to expand on Mr. Dick's assignments at Shoreham in some detail because I believe it is important to point out the fact that Mr. Dick is an independent thinker and a pragmatic problem solver, who keeps the ultimate objective foremost in mind as his primary goal in all of his assignments. While there are many competent engineers from a technical standpoint in both S&W and LILCO, there are very few who possess the qualities I have just mentioned, and these few should be recognized. In my opinion, Mr. Dick is an extremely valuable S&W resource and I believe you are fortunate to have him in your employ. I further believe that he can and should be considered for advancement within S&W as his capabilities are very evident.

Mr. Dick will leave Shoreham with our regrets, but also with our sincere thanks for a job "well done" and for a dedication to Shoreham which went well beyond his professional responsibilities.



W. J. Museler

Director-Office of Nuclear

WJM/ph

cc: M. S. Pollock
J. A. Smith
K. A. Howe

W. Baranowski
W. Piper
W. G. Dick

LILCO Conf. File

INTEROFFICE MEMORANDUM

▲ 000 25

SUBJECT

NINE MILE POINT No. 2
PERSONAL OBSERVATIONS AND
CONCERNS

JO OR
WO NO

12187

DATE

5/2/84

FROM

WG Dick:pl

TO

LW BROWN

CC

Attachment: Same subject dated 5/2/84 to LW Brown from
WG Dick summarizing personal observations
and concerns.

The attached memorandum addresses matters we have discussed
and reviewed increasingly over the past several weeks since
my arrival here at Nine Mile 2 in mid March.

Several of these concerns in specific or generic form you
have concurred with and some you have taken under advisement
agreeing to advise management at a level higher than you.
As you are aware, definitive responses have either not been
forth coming, have begun to be addressed in part and in some
instances the direction of actions taken have been or appear
to be inconsistent with the timely and orderly completion of
the project.

I feel very strongly and sincerely, based on my qualifications
and prior experience that I have an obligation to make these
matters known to you and that they be addressed to appropriate
higher management level.

It is my sincere desire to contribute effectively to the
timely completion of Nine Mile 2. Failure to address these
matters immediately and implement effective corrective action
will in my best judgement result in significant additional
delays, costs and quality difficulties for the project.



W. Gordon Dick

5/1/84

TO : L. W. BROWN

FROM : W. G. DICK

SUBJECT : PERSONAL OBSERVATIONS & CONCERNS
RELATIVE TO THE NINE MILE 2 PROJECT

THE FOLLOWING IS AN ITEMIZED SUMMARY OF OBSERVATIONS & CONCERNS RELATIVE TO THE NINE MILE 2 PROJECT. WHERE POSSIBLE, AND APPROPRIATE, RECOMMENDATIONS ARE PROVIDED. THE OBSERVATIONS & CONCERNS ARE SUBMITTED AS SIMPLY & FACTUALLY AS POSSIBLE WITH ONE GOAL CLEAR IN MIND NAMELY : TO COMPLETE THIS PROJECT AS SOON AS POSSIBLE WITHIN REQUIRED SAFETY, QUALITY AND COST PARAMETERS BY USING WORKABLE MANAGEMENT METHODS AND QUALIFIED, EXPERIENCED PERSONNEL TO THE BEST ADVANTAGE OF THE PROJECT.

1. CONSTRUCTION MANAGEMENT ORGANIZATION

AFTER MY ARRIVAL HERE IT WAS EVIDENT VERY QUICKLY TO ME THAT THE CONSTRUCTION MANAGEMENT ORGANIZATION WAS UNWIELDY, REDUNDANT, INEFFICIENT, INEFFECTIVE AND SO CONFUSED AMONG THE VARIOUS DEPARTMENTS THAT THE PROJECT DIRECTION WAS AND IS LOST & CONFUSED. I COMMUNICATED THESE CONCERNS TO YOU WITH RECOMMENDATIONS AND SUBMITTED A PROPOSED ELECTRICAL DEPT ORGANIZATION FORMAT & RATIONALE IN EARLY APRIL.

YESTERDAY ON 4/30/84 AN AMENDED ORGANIZATION WAS ISSUED. I HAVE REVIEWED THIS AND HAVE CONCLUDED THAT THE AMENDED ORGANIZATION IS EVEN MORE COMPLEX, CONFUSED & UNWORKABLE THAN PREVIOUSLY; THE PERSONNEL SELECTED FOR MANY KEY POSITIONS ARE NEITHER QUALIFIED NOR SUFFICIENTLY EXPERIENCED IN THIS DAY & AGE IN THIS INDUSTRY AT THIS TIME OF CRISIS TO EXECUTE THE WORK AND THE RESULTANT EFFECT, WHEN COMBINED WITH MY OTHER CONCERNS WILL CREATE A VERY HIGH PROBABILITY THAT PROJECT SCHEDULES WILL NOT BE ACHIEVED & PROJECT COSTS WILL ESCALATE BEYOND EVEN PSC ESTIMATES.

RECOMMENDATIONS

- DO NOT IMPLEMENT THE RECENTLY ISSUED ORGANIZATION
- REVISE TO ELIMINATE REDUNDANT PERSONNEL

- RE-ASSIGN KEY PERSONNEL TO POSITIONS, LEVELS AND ROLES TO BEST TAKE ADVANTAGE OF THEIR QUALIFICATIONS, EXPERIENCE AND ABILITIES.
- REDUCE OVERALL CONSTRUCTION MANAGEMENT PERSONNEL BY RE-ALIGNMENT & SIMPLIFICATION OF DEPARTMENTS TO REDUCE DUPLICATED FUNCTIONS & UNNECESSARY INTERACTIONS.

2. ENGINEERING, PROGRESS & VENDOR DELIVERY DATES.

ENGINEERING SUPPORT & VENDOR DELIVERIES DO NOT SUPPORT THE PREVIOUS NOR THE RECENTLY ENHANCED PROJECT SCHEDULE GOALS. THESE CONCERNS ARE EXHIBITED REPEATEDLY THROUGHOUT THE PROJECT WITHIN & WITHOUT THE ELECTRICAL DISCIPLINES. THE PROBLEM IS COMPOUNDED BY THE FACT THAT, AS INDICATED IN CONCERN NO. 4 BELOW, THE PROJECT SCHEDULES ARE DRAWN WITH LESS THAN THOROUGH CONSIDERATION FOR ENGINEERING & PROCUREMENT STATUS & PROGRESS AND, WHERE THESE CONSIDERATIONS ARE INCORPORATED, THEY ARE PREDOMINANTLY INCLUDED ON A VERY OPTIMISTIC BASIS WITH LITTLE OR NO CONSIDERATION FOR THE EXISTING TRACK RECORD.

RECOMMENDATIONS.

- IMMEDIATE & CONSIDERABLE CHANGES IN ENGINEERING MANAGEMENT PERSONNEL AND/OR METHODS IS ESSENTIAL TO IMPROVE THIS SITUATION.
- FUNDAMENTAL CHANGES IN THE METHODS FOR INCORPORATING ENGINEERING SCHEDULE COMMITMENTS INTO OVERALL PROJECT SCHEDULES INCLUDING REALISTIC ALLOWANCES FOR EXISTING & HISTORIC TRACK RECORDS AND IMPACT OF FIELD GENERATED ERRORS.

3. CONTRACTOR INTERFACES.

THE CONTRACTOR INTERFACES ON THIS PROJECT AT WHAT WAS EXPERIENCED WITH THE ELECTRICAL CONTRACT ARE MANY, REDUNDANT AND LEAD TO UNMANAGEABLE SITUATIONS WHICH BORDER ON THE LUDICROUS (IF THESE ARE NOT IN FACT TRUE). I HAVE SPENT A GREAT DEAL OF MY TIME HERE TRYING TO CREATE ORDER FROM CHAOS TO FIND THAT THE CONTRACTOR MANAGEMENT PERSONNEL ATTEND MEETINGS AND RECEIVE DIRECTION WITHOUT MY KNOWLEDGE OR CONVICTION. THIS OCCURS AT VARIOUS MANAGEMENT LEVELS INCLUDING AND APPROPRIATE TO THE PROJECT.

CONSTRUCTION MANAGER AND PROJECT DIRECTOR.

RECOMMENDATIONS.

- THE CONSTRUCTION MANAGEMENT RE-ALIGNMENT MUST CLEARLY ESTABLISH THE LINES OF COMMUNICATION & REPORTING TO THE SITE CONTRACTORS.
- THE LINES OF COMMUNICATION & REPORTING WITHIN THE CONSTRUCTION MANAGEMENT ORGANIZATION MUST BE FOCUSED TOWARDS THE CONTRACTOR THROUGH ONE PRIME MANAGEMENT GROUP.
- THE CURRENT CONTRACTS MUST BE REVISED TO ALIGN WITH AND REFLECT THE ORGANIZATION, SCHEDULE & COST GOALS BEING ESTABLISHED TO COMPLETE THE PROJECT.

4. SCHEDULE & COST PROGRAM.

AT THE RISK OF BEING ACCUSED OF FLIPANCY, WHICH IS NOT THE CASE HERE. I BELIEVE THAT THE LATE MARSHALL MCLUAN'S OBSERVATION THAT "THE MEDIUM IS THE MESSAGE" WAS NEVER BETTER ILLUSTRATED THAN HERE AT NINE MILE 2. AT THIS PROJECT WE HAVE SOME OF THE MOST ADVANCED MANAGEMENT INFORMATION SYSTEMS IN THE INDUSTRY (THE MEDIUM) YET THE INTENDED OUTPUT (THE MESSAGE) IS GARBLED & INEFFECTIVE AS WE CONTINUE TO APPLY THE PRINCIPLE OF "GARBAGE IN GARBAGE OUT". ONE VERY SMALL YET NOT INSIGNIFICANT EXAMPLE OF THIS IS THE L.K. COMSTOCK 1984 WORK PLAN ISSUED ON MARCH 6TH 1984 UNDER SIGNATURE OF THE CONSTRUCTION MANAGER TO THE L.K. COMSTOCK PROJECT MANAGER, AS YOU KNOW I HAVE DISCUSSED WITH YOU THE TRAGEDY OF THIS WHOLLY INADEQUATE DOCUMENT.

THE CURRENT SCHEDULE ENHANCEMENT PROGRAM APPEARS TO BE A GALLANT YET FLAWED ATTEMPT TO TURN THIS SITUATION AROUND, AS YOU KNOW I HAVE ATTEMPTED TO OFFER SPECIFIC RECOMMENDATIONS VERBALLY & IN WRITING TO NO APPARENT AVAIL & HAVE OFFERED TO SIT WITH THE PROJECT DIRECTOR TO OFFER CONSTRUCTIVE INPUT WITHOUT RESULT. ALTHOUGH TODAY WE ARE CONTINUING TO EXAMINE THESE SCHEDULES, THE FUNDAMENTAL & GENERIC ISSUES OF FEASIBILITY CONTROL, MONITORING, TRACKING & STATISTICS WILL NOT GO AWAY AND WILL NOT WORK.

5. CONSTRUCTION COMPLETION & QUALITY INSPECTION PROGRAM

THE VARIOUS PROGRAMS WHICH ADDRESS WORK COMPLETION BY CONSTRUCTION AND THE TRACKING OF QUALITY INSPECTIONS, UNSATS, EXCEPTIONS AND OPEN PUNCHLIST ITEMS (PLIR'S) IS A CONGLOMERATION OF WELL-MEANING PROGRAMS WHICH ARE COLLECTIVELY A DISORDERED SHAMBLES LEADING TO DELAYS, PAPER TRACKING NIGHTMARES & TOTAL LACK OF WORKITEMS AND STATUS CONTROL, WHICH IN TURN WILL REFLECT UPON THE ABILITY TO RECORD & REPORT ON QUALITY ATTRIBUTES AND STATUS. THESE VARIOUS PROGRAMS REPRESENT A MAJOR CROSSROADS AT WHICH CONSTRUCTION QUALITY CONTROL, START-UP, ENGINEERING AND THE CLIENT ALL MEET TOGETHER & FACE ON OCCASIONS THE NUCLEAR AND STATE FISCAL REGULATORS.

AT PRESENT, PEOPLE FROM VARIOUS AGENCIES CHASE PAPER TO CHASE PEOPLE, TO CHASE PAPER ----- ETC. WHILE BY SOME CHANCE IF NOT BY SOME MIRACLE, THE WORK MAY (OR MAY NOT) GET DONE. WE HAVE ENTIRE GROUPS (SEVERAL) DEDICATED TO THE PAPER CHASE, BUT TO ACCOMPLISH THEIR ASSIGNED TASK THEY ALWAYS GIVE IT THE SOONER OR LATER TO CHASE OR HARBASS AND THEREBY AGGRAVATE & DELAY THE CONSTRUCTION MANAGEMENT AND CONTRACTOR PERSONNEL WHO ARE MANAGING, DIRECTING AND SUPERVISING THE WORK.

RECOMMENDATIONS.

- A FUNDAMENTAL, EXPEDITED OVERHAULING & SIMPLIFICATION OF THE CCCP PROGRAM IS REQUIRED TO AVOID DUPLICATION WITH EQUIVALENT QUALITY INSPECTION PROGRAMS.

- THE ROLE OF THE "OWNER'S INSPECTORS" AND/OR "THE FINANCIALS INSPECTOR" FOR CAT I & CAT II WORK MUST BE CLEARLY DEFINED TO AVOID DUPLICATION & AVOID DELAYS AND INEFFICIENCIES.

- THE USE OF CCCP'S, UNSAT I'S AND PLIR'S TO TRIPLE DOCUMENT & TRACK OPEN INCOMPLETE OR UNSATISFACTORY WORK REQUIRES PROMPT EVALUATION & SIMPLIFICATION.

OTHER SUGGESTIONS SUCH AS THE USE OF CURRIC OR ADMINISTRATIVE "RUNNERS" OR CONSTRUCTION ASSISTANT PERSONNEL - HAVE BEEN MADE AS YOU ARE AWARE AND SO FAR THE ONLY RESPONSE HAS BEEN TO CUT BACK ON THE WORK.

6. MANAGEMENT PRACTICES & METHODS.

THESE CONCERNS, COUPLED WITH THOSE OUTLINE IN 7 BELOW REPRESENT MY PERSONAL SINCERE OPINION AND PROBABLY CONTRIBUTE GREATLY TO THE FOREGOING CONCERNS IN A MOST DAMAGING WAY BY DIFFUSING AUTHORITY & RESPONSIBILITY AMONG TOO MANY AGENCIES ASSIGNING MAJOR TASKS TO UNQUALIFIED INEXPERIENCED PERSONNEL & ATTEMPTING TO IMPLEMENT POLICIES PROCEDURES AND PRACTICES WHICH INDIVIDUALLY MAY APPEAR SOUND BUT COLLECTIVELY & SIMULTANEOUSLY IMPLEMENTED RESULT IN CHAOS & ORGANIZATIONAL "GRIDLOCK". THE NET RESULT ARE PERSONNEL CAUGHT IN CONFUSION, DEMORALIZING, UNPROFESSIONAL & DEGRADING SITUATIONS WITH LITTLE EFFECTIVE RECOURSE BUT TO "BING ALONG OR QUIT".

EXAMPLES OF THIS ARE INDIVIDUALLY SMALL BUT ARE SO NUMEROUS AND PERVASIVE AS TO BE LIKE A POISONOUS SUBSTANCE SMEARED ACROSS THE PROJECT AS AN ILLUSTRATION I WAS ADVISED THAT THE FORMER ENCHIRAL ASSISTANT EVPT WOULD REPORT TO ME AND WHETHER HE STAYED OR LEFT WAS UP TO ME. I PROCEEDED IN THIS DIRECTION AND ASSIGNED HIM TO A KEY ROLE ONLY TO FIND THAT HE WOULD BE PULSED FROM MY DEPARTMENT AGAINST MY BETTER JUDGMENT BY MANAGEMENT EDICT TO FILL A "KEY ROLE" IN THE NEWLY ESTABLISHED TURNOVER GROUP. THIS, FOR A PERSON WHO ONLY EIGHT WEEKS PREVIOUSLY HAD BE DISCOURAGED AND HUMILIATED AS AN "INEFFECTIVE MANAGER" AND "POOR LEADER".

OTHER EXAMPLES ABOUND, REGRETABLELY INCLUDING ONE INSIDIOUS WIDE SPREAD CONCERN THAT MANAGEMENT ON THIS JOB AT THE HIGHEST LEVEL OF CONSIDERATION USE CONSIDERATIONS IN ADDITION TO AND EVEN IN PREFERENCE TO EXPERIENCE QUALIFICATIONS AND PROVEN ABILITY TO SELECT PERSONNEL FOR ADVANCEMENT. THIS WIDELY DISCUSSED AND WIDELY KNOWN CONCERN IS REFERRED TO VARIOUSLY AS THE "SOFT-BALL SOURCE", "THE YOUNG PITCHERS" ETC HAS BEEN BROUGHT TO MY ATTENTION SO MANY TIMES BY SO MANY PEOPLE THAT WHILE I PERSONALLY QUESTION THE IMPACT, EXTENT AND VALIDITY OF THIS, I DO NOT DOUBT THE SIGNIFICANT NEGATIVE IMPACT ON THE PROJECT.

RECOMMENDATIONS

RECOMMENDATIONS RELATING TO THIS HAVE BEEN PREVIOUSLY MADE TO YOU & I FEEL SHOULD BE, IF REQUIRED, COORDINATED VERBALLY, INTERVIEWED WITH

7. CONSTRUCTION MANAGEMENT PERSONNEL UTILIZATION.

AT THE PRESENT TIME, THE UNWISDOMLY NUMBER OF CONSTRUCTION MANAGEMENT PERSONNEL IS LARGELY CAUSED BY INEFFECTIVE ORGANIZATION AND BY THE USE OF UNQUALIFIED, MARGINALLY QUALIFIED, INEXPERIENCED PERSONNEL IN MANY POSITIONS INCLUDING HIGH LEVEL MANAGEMENT. I HAVE ALREADY ADDRESSED THE MANAGEMENT ORGANIZATION IN CONCERN NO 1 ABOVE.

CONTRARY TO CURRENT "WISDOM" THE USE OF PROVE PERSONNEL WITH PRIOR RELEVANT EXPERIENCE AS OPPOSED TO THE "YOUNG, TIGER" CONCEPT THAT VIGOR AND ENTHUSIASM TRANSCENDS ALL, WORKS IF ALLOWED TO WORK AND ACCELERATES SCHEDULES, IMPROVES QUALITY AND REDUCES COSTS.

ON THIS PROJECT IN THE HIGHEST LEVELS OF CONSTRUCTION MANAGEMENT AND IN VARIOUS KEY POSITIONS THROUGHOUT OUR ORGANIZATION, THE OPTIMUM PLACEMENT AND USE OF PERSONNEL AND EXPERIENCE HAS BEEN AND WILL CONTINUE TO BE THWARTED BY THE INCORRECT PLACEMENT AND USE OF EXPERIENCED PERSONNEL.

I HAVE, AS YOU ARE AWARE, MADE SPECIFIC AND GENERIC RECOMMENDATIONS IN THIS REGARD RELATING TO SPECIFIC POSITIONS INCLUDING THE CONSTRUCTION MANAGER, THE PROPOSED SIFT OF CONSTRUCTION TURNOVER AND THE ELECTRICAL SIFT. OTHER EXAMPLES DO EXIST AND SOME HAVE BEEN DISCUSSED.

RECOMMENDATIONS.

THOSE HAVE BEEN OFFERED PREVIOUSLY IN PART AND I FEEL SHOULD BE MADE VERBALLY AT HIGHER MANAGEMENT LEVELS.

CONCLUSIONS.

THERE ARE IN MY OPINION SERIOUS AND SIGNIFICANT PROBLEMS WHICH ARE AND WILL AFFECT THE CONSTRUCTION OF NINE MILE 2 AND WHICH REQUIRE IMMEDIATE AND ADDITIONAL CHANGES TO THE MANAGEMENT AND THE MANAGEMENT METHODS AND APPROACH OTHERWISE NINE MILE STANDS A VERY HIGH RISK OF DETRIMENT TO THE LEVELS OF OTHER NUCLEAR PROJECTS OF THE VENTAGE.

J. G. Haehl, Jr., Chairman and C.E.O.
Niagara Mohawk Power Corporation
300 Erie Boulevard
Syracuse, New York, 13201

August 24, 1984

Dear Sir:

On May 8, 1984, you were advised of certain serious events, reference #1. On May 31, 1984, relevant additional details were presented to your representatives, reference #2. Your representatives committed to a follow-up and response by June 15, 1984. This did not occur.

Immediate remedial actions were urged on May 8, 1984, reference #1, to correct the matters brought to your attention.

As principal owners and project line management directors in an integrated management structure, you are directly responsible to your project.

To permit and perpetrate these conditions is a dis-service to your corporation, your rate-payers, your co-owners, and violates the parameters prescribed by those responsible for fiscal and legal regulation of the utilities in New York.

Sincerely,

JPD/dd
cc
references:

- #1) Letter from [redacted] to J. G. Haehl, Jr., dated May 8, 1984
- #2) Additional details consisting of 15 pages and 33 references.



L. K. COMSTOCK & COMPANY, INC.

Memorandum

To: R. Wagner
From: A. Fallon
Subject: Milestone Schedules

Office NMP2

Date 4-26-84

The following is a summation of our observations and concerns involving the development of the new "12 Major Milestones".

In developing these milestone schedules several key assumptions had to be made in order to produce a usable product in the short timespan allotted. We had to assume that CHOC Engineering information was or would be available on site in a "timely manner" to support these schedules. We assumed that F.Q.C. was properly staffed and had sufficient inspection procedures to do timely inspections. We also assumed that schedules and installations by others would be done in time to support our activities in these schedules. These assumptions were, and are, our biggest concerns in meeting these schedules.

During the entire milestone scheduling process CHOC Engineering was not represented nor did they provide any input or comments on the schedules. This highly concerns us because of their past performances in supporting site generated schedules. In developing these schedules, it was found that there were a few missing engineering items for the near term milestones, but the missing engineering information for the longer term milestones greatly increased. This is unacceptable if these schedules are to be met. In order to meet these schedules, CHOC Engineering must improve the existing information and have complete information on site a minimum of three months prior to Construction's turnover. The much talked about "Engineering Freeze" must be in effect now for the near term milestones and become mandated three months prior to Construction's turnover dates for the long term milestones. Because of the ever increasing interference problems and the accelerated schedule, it is suggested that engineering solution and signatory powers for these problems be moved to the site from CHOC office. This will greatly reduce the time required for correspondence from site to CHOC and back on these problems. Engineering must commit to these schedules if we are to be successful.

In developing these schedules, F.Q.C. support was not directly addressed. Their support has been improving but is not at a stage where these schedules can be supported. It is recommended that F.Q.C. review these schedules and develop a manpower loading to support our efforts. It is recognized that hard spots will be encountered especially in regards to Q.A. Category I components inspections where insufficient or unclear direction is provided F.Q.C. It is imperative that quick and specific clarification be given to F.Q.C. by Engineering, Construction, and others to minimize any potentially long resolution time which will impact these schedules.

NOTED
W. G. LICK

MAY 2 1984

J. RONCO / R. KUZAWSKI / W. CZELUSNIARSKA

PLEASE REVIEW & ADVISE IF ANY COMMENTS

WTF

The schedules reflect our direct dependency on others to complete their work on time. There is no slack built into these schedules. Any slippage in their schedules will create an impact on our schedule. Reports on their progress and installed equipment must be developed for use by other contractors to meet their schedules.

The Milestone Schedules are, at best, an optimistic "ball park" sequence of events and quantities developed separately for a single goal. These schedules must now be combined to highlight problem areas. Manpower loading, Engineering, and F.Q.C. support must be quickly reviewed to establish the feasibility of these schedules. A realistic view of these schedules must be taken and adjustments made to schedules to make them achievable. Because these schedules are so compact, it is essential in our opinion that an assessment be made of the probability or expectation that the final product can be achieved.

LKC has and will continue to support any schedule developed to complete this site. However, support and dedication from others is needed. We can no longer accept delays by others and work around these delays. There is no more slack to allow this type of approach.

cc: R. Brinley
R. Burke
G. Dick
T. Stanzione
P. Ubling
L. Brown

RNB/cp

L. W. Brown

FROM: D. L. [unclear]

CC:

J. H. [unclear]
W. M. Doldorf
C. Lawrence
T. Stanzione

I became involved late in the management review meeting of the "hard spots" in the ERL on Thursday with C. Zappile, K. Varadarajan, Expediting and Planning. During the discussion and proposed resolution by CHOC and site, several items were discussed and stated which have me very concerned.

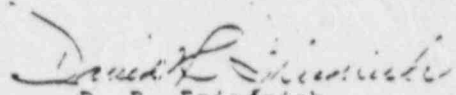
One for issue, or at least in terms of quantities, was the EE-3 series drawings listed in the ERL which involve terminations for the instrument and control cable termination cabinets in the Control Building, Elevations 288'-6 and 306' (CEC*PNL700 series). As you are aware, CHOC Engineering and GE have been busily and forth attempting to resolve the designs or re-designs affecting these termination cabinets. It is anticipated a resolution will be available in May 1983. The SMD for these drawings have been and remain 12/6/82. However, to put these drawings and construction's "real" needs into perspective, K. Varadarajan stated that all the EE-3 series drawings identified in the ERL (not issued at 90%-holds, later or 80% issue presently on site) involve only the NSSS and do not involve BOP system or BIP's required in 1983. Therefore, construction does not need these drawings now or before May 1983.

Contrary to that statement a very quick and dirty audit was made of these drawings. The first two looked at (EE-3AR and 3BA) are issued on site less than 90% with incomplete information in the form of laterals involving cables and terminations needed for the 115Kv Yard Milestone and BIP. To support the construction schedule, therefore, these drawings are required now, not in May. This clearly indicates CHOC Engineering did not research each drawing to determine the subject matter, yet confidently stated drawings were not required by construction to support the current turn-over activities.

The other item of concern involves the issuance of drawings to support the current Level II Schedule. In particular the discussion pertained to the issuance of the exposed conduit drawings, Secondary Containment Elevation 240' and Elevation 289' (EE-460AG, AH, AS and AT). Mr. Varadarajan brought our attention to a package presented by CHOC management in the Co-Tenant's Meeting February 14, 1983. This package identified drawing issuances of 8/1/83 and 8/15/83 for the above drawings. Be advised that these dates do not in any manner support the field activities. I informed Mr. Varadarajan of this item and was told that the commitments were made as identified in this report and CHOC Engineering is working to those commitments. Again, quick review of this report shows many discrepancies between site field required or site need dates which do not support the construction effort to complete the various installations in a timely and cost effective manner. Unless you are aware of other commitments made and accepted by construction, it is requested that CHOC Engineering review the dates identified in the Co-Tenant's Meeting and revise as necessary to support the Project Schedule.

It is felt that the Exception Restraint List is and will continue to be a useful and beneficial tool to identify and resolve restraints and/or lacking equipment. However, the information supplied by all parties, CMDC and sira, must be accurate and reflect the needs of the project. I believe that the statements made in Thursday's meeting and as identified above do not support this viewpoint.

Your review and assistance is requested.


D. R. Friedrich
Chief Construction Engineer

DRF/mef

To W.G. DICK

MAY 2 1984

FR [REDACTED]

SUB SCHEDULE Support
SWEC ELECTRICAL DEPT.
NINE MILE POINT II N.P.S.

AS REQUESTED I HAVE REVIEWED "REVISED SCHEDULE PROGRAM PROPOSAL" DATED 2-28-84. IN THIS REVIEW I HAVE COMMUNICATED WITH J. LAPOINTE AND N. SULEK OF THE PLANNING DEPT. AND MEMBERS OF THE ELECTRIC DEPT. ALSO REVIEWED WERE THE FIVE MILESTONE SCHEDULES TRANSMITTED BY MEMO OF B. CHARLSON FOR IMPLEMENTATION.

GENERAL:

THESE "SCHEDULES" ARE UNREALISTIC AND MISLEADING FOR PROJECT COMPLETION STATUS, MILESTONE ACHIEVEMENT AND MANAGEMENT VISIBILITY.

THE "REVISED SCHEDULE PROGRAM PROPOSAL" LACKS BASIC FUNDAMENTALS THAT ARE REQUIRED FOR ANY PROGRAM TO FUNCTION EFFECTIVELY.

SPECIFIC CONCERNS:

SCHEDULES DO NOT INCORPORATE ENGINEERING OR PURCHASING'S IMPACT, INTERFACE OR REQUIREMENTS. THIS IS UNREALISTIC AND WILL CAUSE SERIOUS PROBLEMS IN THE FUTURE FOR SWEC, NMPC AND THE CONTRACTOR.

SCHEDULES DO NOT ADDRESS QUALITY RELATED ACTIVITIES IN THE AREAS OF CONSTRUCTION INSPECTION AND THE PAPER RELATED REALISM, OF TODAY'S NUCLEAR INDUSTRY SCHEDULES AND PROGRAMS ARE NOT COMMUNICATED WITH ANY INTELLIGENCE, IE LACK OF COVER MEMOS TO IDENTIFY DIRECTION AND OR COMMUNICATIONS BETWEEN AGENCIES RESPONSIBLE OR HELD RESPONSIBLE FOR APPLICABLE ACTION.

SCHEDULE INPUT PERTINENT DATA AS TRANSMITTED FROM THE CONTRACTOR TO PLANNING DEPT IS NOT INCORPORATED OR NOTED ON SCHEDULES (THIS PROBLEM HAS BEEN IDENTIFIED TO PLANNING, THEY HAVE ASSURED THESE PROBLEMS WILL BE RECTIFIED AND FUTURE SCHEDULE WILL INCORPORATE ALL DATA TRANSMITTED BY THE CONTRACTOR INCLUDING NOTES, SCHEDULE START/COMPLETE DATES ETC.

SCHEDULES DO NOT INCORPORATE OR REFLECT REWORK CREATIONS

PROGRAM Although identified in the program that is to be formatted to satisfy the end user the end user's input was not solicited.

Summary: As previously identified to you the possible high risk of exposure to sweat "this matter should be addressed accordingly to minimize later consequences in reference to management prudence.

IF THERE ARE ANY QUESTIONS OR REQUIRED ACTIONS PLEASE IDENTIFY.

Thank you



5-3-84

TO W.G. DICK

FR [REDACTED]

SUB. SCHEDULE SUPPORT
SWEC ELECTRICAL DEPT
NINE MILE POINT II NPS.

AS REQUESTED THE FOLLOWING SHALL SERVE TO HIGHLIGHT MY PERCEPTIONS OF THE 4B, 5-84 ELECTRICAL SCHEDULE REVIEW MEETING.

GENERAL: STRONG MANAGEMENT CONCERNS INDICATED BY THE PRESENCE OF SENIOR/HIGHEST LEVEL SITE MANAGEMENT PERSONNEL. ORIGINAL TONE WAS TO GET A FIRM COMMITMENT FROM ELECTRICAL CONTRACTOR TO COMPLETE HIS WORK BY MILESTONE SCHEDULE. FINAL TONE, SCHEDULES DID NOT REFLECT TRUE SCOPE OF REMAINING WORK AND IT WAS IMPOSSIBLE TO GIVE A REALISTIC COMPLETION DATE BY BIP OR MILESTONE.

SPECIFIC OBSERVATIONS: A) ON MON/TUES, PIPING AND INSTRUMENTATION WERE REVIEWED AGAINST MILESTONE SCHEDULES B) IT WAS IDENTIFIED BY R. BURKE THAT THESE TWO DISCIPLINES GAVE A POSITIVE RESPONSE TO MEETING/ACHIEVING THESE SCHEDULES AS DRAWN. C) ALSO IDENTIFIED WAS THE IDENTIFICATION THAT TO ACHIEVE THIS OTHERS MUST SUPPORT LINE BY LINE. G. MR. PUBLING STARTED REVIEW AND IDENTIFIED THREE ASSUMPTIONS BUILT INTO THE SCHEDULES I) I/C. WOULD RUN PARALLEL TO CONSTRUCTION ACTIVITIES 2) E/P/R WILL SUPPORT CONSTRUCTION ACTIVITIES 3) NETWORKS WERE DRAWN AS STAND ALONE. D) MR. PUBLING STARTED REVIEW WITH 4160 SCHEDULE LINE BY LINE AND STATED REVIEW WOULD NOT CONSIDER ASSUMPTIONS, WOULD BE ADDRESSED SEPARATELY E) MR. L. BROWN IDENTIFIED CONCERN TO TURN OVER SYSTEMS AND PUNCH LIST REMAINING WORK. F) WHEN CONCERNS BY MR. R. BRINLEY WERE FIRST IDENTIFIED THEY WERE ATTEMPTED BY L. BROWN TO BE TAKEN LIGHTLY AND PASSED OVER. G) WGR WOULD NOT ALLOW THIS TO BE TAKEN LIGHTLY AS THEY WERE KEY ISSUES TO GIVING REAL COMPLETION DATES. H) MR. W. MORRISON INJECTED CONCERN OF REALITY OF SCHEDULES I) WGR IDENTIFIED SCHEDULES WERE "MOOT" WITHOUT INCORPORATION OF ASSUMPTIONS PLUS REWORK. J) MR. MORRISON ASKED MR. DICK IF HE MENT THEY (SCHEDULES) WERE NO GOOD. WGR RESPONDED

"
THAT THEY WERE MOOT WITHOUT INCORPORATING
ASSUMPTIONS INTO REVIEW/SCHEDULES" K) J. PRAK
EXPRESSED CONCERNS ON LACK OF INFORMATION (ENG)
INPUT AND IDENTIFIED SCOPE - DESIGN - ENGINEERING
EQUALS NO GOOD SCHEDULES. W. MORRISON IDENTIFIED
MEETING WAS A WASTE OF TIME, GAVE DIRECTION TO
E. J. KEN TO GET COLLECTIVE REVIEW TOGETHER AND
AJOURNED MEETING.

SUMMARY: AS PREVIOUSLY OBSERVED AND IDENTIFIED
TO YOU, THE MAKING OF SCHEDULES WITHOUT BASIC
COMMODITIES SUCH AS ENG / PUR / QC / REWORK
DEVELOPES UNREALISTIC SCHEDULES
THE RESULT OF THIS MEETING (AJOURNMENT) DID
NOT SURPRISE ME AS THESE SCHEDULES WERE
DRAWN TO LESS THAN ACCEPTABLE CRITERIA.
ADDITIONAL CONCERN ARISES IN MY MIND ABOUT
THE "POSITIVE" COMMENTS MADE IN REFERENCE TO
THE PIPING AND INSTRUMENTATION STATUS ON THIS
SITE. DUE TO THE CLOSE INTERFACE WITH ELECTRICAL
AND OTHER DISCIPLINES WORK SCHEDULES IT IS
IMPERATIVE TO HAVE THESE COMMENTS INVESTIG-
ATED FOR ACCURACY / AND CORROBORATE WITH
THE ASSUMPTIONS IDENTIFIED, IE IF THESE
OTHER DISCIPLINES HAVE ALL EXISTING / PURCHASE
QC / AND REWORK ADDRESSED OR NOT OR COMPLETED.

I thank you



NINE MILE POINT NUCLEAR STATION - UNIT 2

1984 DYNAMIC PERCENT COMPLETE PLAN

PROGRESS UPDATE - AUGUST 19, 1984

TOTAL CONSTRUCTION		1984 PLAN		1984 EARNED DIRECTS		1984 EXPENDED (ACTUAL)		1984 EXPENDED (EFFECTIVE)	
MONTH	DEC 1983	INCR	18,926,379	INCR	VAR+(-)	18,926,379	VAR+(-)	19,686,846	VAR+(-)
(5 weeks)	(1188,833)	A1(2)	B1 BCWS	C1(2)	(C-A)	D1 BCWP	(D-B)	E1 ACWP	(D-F)
JANUARY	CURRENT	1.38	366,189	1.32	(0.06)	350,157	(16,032)	478,972	(128,815)
	CUM 1984	1.38	366,189	1.32	(0.06)	350,157	(16,032)	478,972	(128,815)
	CUM TOTAL	72.88	19,292,568	72.82	(0.06)	19,276,536	(16,032)	20,165,818	(889,282)
FEBRUARY	CURRENT	1.83	483,491	2.30	0.47	608,420	124,929	822,536	(214,116)
	CUM 1984	3.21	849,680	3.62	0.41	958,577	108,897	1,301,508	(342,931)
	CUM TOTAL	74.71	19,776,059	75.12	0.41	19,884,956	108,897	20,988,354	(110,398)
MARCH	CURRENT	1.46	387,865	1.85	0.39	489,333	102,268	687,511	(198,178)
	CUM 1984	4.67	1,236,745	5.47	0.80	1,447,910	211,165	1,989,018	(541,108)
	CUM TOTAL	76.17	20,163,924	76.97	0.80	20,374,289	211,165	21,675,864	(130,575)
APRIL	CURRENT	1.50	398,129	1.85	0.35	490,284	92,155	693,867	(202,783)
	CUM 1984	6.18	1,634,874	7.32	1.14	1,938,194	303,320	2,682,885	(743,891)
	CUM TOTAL	77.67	20,562,053	78.82	1.14	20,864,573	303,320	22,368,931	(150,358)
MAY	CURRENT	1.77	468,515	2.38	0.61	629,214	160,699	732,722	(103,508)
	CUM 1984	7.95	2,103,389	10.63	2.65	2,567,408	464,019	3,414,807	(599,875)
	CUM TOTAL	79.44	21,030,568	81.20	2.65	21,493,787	464,019	23,181,653	(136,866)
JUNE	CURRENT	1.35	356,476	1.81	0.46	478,876	122,400	577,597	(98,721)
	CUM 1984	9.29	2,459,865	12.25	2.96	3,046,284	586,419	3,992,403	(750,117)
	CUM TOTAL	80.79	21,387,044	83.75	2.96	22,168,595	782,311	23,679,249	(151,654)
JULY	CURRENT	1.21	321,302	1.62	0.41	429,226	107,924	576,126	(146,900)
	CUM 1984	10.51	2,781,167	13.93	3.43	3,475,510	694,343	4,568,529	(880,030)
	CUM TOTAL	82.00	21,708,346	85.43	3.43	22,613,820	907,332	24,255,375	(164,555)
AUGUST	CURRENT	1.35	356,647	2.44	1.09	645,886	289,159	762,973	(117,167)
	CUM 1984	11.85	3,137,814	16.56	4.70	4,121,396	983,582	5,331,503	(940,920)
	CUM TOTAL	83.35	22,064,993	88.86	4.70	23,308,962	1,244,769	25,018,349	(170,987)
SEPTEMBER	CURRENT	1.00	264,298						
	CUM 1984	12.85	3,402,112						
	CUM TOTAL	84.35	22,329,191						
OCTOBER	CURRENT	0.92	243,780						
	CUM 1984	13.77	3,645,892						
	CUM TOTAL	85.27	22,572,971						
NOVEMBER	CURRENT	0.97	256,466						
	CUM 1984	14.74	3,902,358						
	CUM TOTAL	86.24	22,829,437						
DECEMBER	CURRENT	0.66	174,846						
	CUM 1984	15.40	4,077,204						
	CUM TOTAL	86.90	23,004,281						

CUMULATIVE ADJUSTMENTS:
(1984 CUM & TOTAL CUM)

MAY (BCWP) = 247,524 MHRS (SWEC)
JUN (BCWP) = 51,592 MHRS (MULTIPLE)
JUL (BCWP) = 17,057 MHRS (MULTIPLE)
AUG (BCWP) = 48,278 MHRS (MULTIPLE)

* NOTE: (1) 80.03 Cumulative Percent Complete based on 18,926,379 Total Earned Direct Manhours thru December 1983, calculated against a base of 23,650,000 Total Estimate Direct Manhours, as shown in January. This Cumulative Percent Complete will adjust per Note (2) below.
(2) 1984 Dynamic Planned and Actual Percent Complete will be calculated using the respective current month MOD 1 Estimate as follows:
15JAN84 MOD 1 = 23,579,756 MH 15JUL84 MOD 1 = 26,317,848 MH
19FEB84 MOD 1 = 25,054,520 MH 19AUG84 MOD 1 = 26,478,781 MH
18MAR84 MOD 1 = 25,253,933 MH 16SEP84 MOD 1 = As Identified
15APR84 MOD 1 = 25,206,135 MH 14OCT84 MOD 1 = As Identified
20MAY84 MOD 1 = 26,546,131 MH 18NOV84 MOD 1 = As Identified
17JUN84 MOD 1 = 26,317,854 MH 16DEC84 MOD 1 = As Identified

RK840125-A

DIRECT PERFORMANCE BY CONTRACTOR
(*DYNAMIC PERCENT COMPLETE)
AUGUST 1984

<u>CONTRACTOR</u>	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>ECWP</u>
AE WALSH CONSTRUCTION CO.	0	59,992	37,829	
AI WILTSIE CONSTRUCTION	6,090	0	0	
AP ITT GRINNELL I.P.I.	105,768	126,167	219,516	192,625
AR JOHNSON CONTROLS, INC.	37,800	24,062	51,960	
AT L.K.COMSTOCK COMPANY	78,000	167,119	184,107	
AW SCHNEIDER POWER CORP.	9,360	31,933	31,933	
MZ SNYDER & MACKIN/SCHAFFER	1,813	2,363	2,363	
-1 STONE & WEBSTER	73,973	202,094	188,938	
SUB-TOTALS	312,804	613,730	716,646	689,755
AH CENTRAL CITY	1,431	278	278	
AJ STACK	2,305	2,889	2,889	
AK PLIMOTH FIREPROOFING	648	561	561	
AN REACTOR CONTROLS, INC.	2,792	2,500	16,625	
AQ INSULATION	12,894	972	972	
AX GRINNELL F.P.S. (WATER)	487	1,794	1,794	
BA TUSCARORA (PROT. DIKE)	4,970	2,568	2,568	
BF CIVES STEEL CORP.	2,130	2,061	2,061	
BM DOORS	597	0	0	
BN GENERAL ELECTRIC (T.G.)	12,428	15,286	15,286	
BQ MIR INSULATION	1,201	240	240	
BT COOLING TOWER ELECTRIC	0	1,883	1,883	
BX GRINNELL F.P.S. (CO2)	178	20	146	
CB R.R. TRACK - PHASE III	0	0	0	
CF H.H.ROBERTSON	0	560	560	
CM PARTITIONS	49	0	0	
CX GRINNELL F.P.S. (HALON)	0	0	0	
DX FPW RADWASTE	427	392	392	
EM DOORS	12	0	0	
EN METAL CLADDING	0	0	0	
FM DOORS	258	0	0	
GE PHASE II CIVIL	0	0	0	
HE COOLING TOWER FLUME	727	0	0	
HM ELEVATORS	0	64	-64	
LM FLOOR FINISHES	132	0	0	
NM ACOUSTICAL CEILINGS	178	8	8	
PM STEEL WALLS	0	0	0	
SN RADIATION SHIELDING	0	0	0	
SUB-TOTALS	43,843	32,016	46,327	46,327
ADJUSTMENTS	0	0	0	0
TOTAL DIRECTS	356,647	645,806	762,973	736,082
RATE RATIO	1.1814 (ACTUAL)		1.1398 (EFFECTIVE)	
PERCENT COMPLETE - CURRENT MONTH	1.35	2.44 (181.08% OF PLAN)		
*PERCENT COMPLETE - CUMULATIVE	83.35	88.06 (+4.70)		
*CURRENT MONTH MOD 1 BASE =	26,470,701	DIRECT MANHOURS		

NOTE: PERCENT OF DISTRIBUTABLES TO TOTAL HOURS WORKED = 26.68

CUMULATIVE ADJUSTMENTS: (BCWP) +48.278 (MULTIPLE CONTRACTORS)

DESCRIPTIONS	NONMANUAL ST. HRS.	NONMANUAL OT. HRS.	MANUAL ST. HRS.	MANUAL OT. HRS.	TOTAL HRS. FOR MONTH	TOTAL HRS. TO DATE	TOTAL MANUAL HRS. TO DATE	TOT NONMAN HRS. TO DATE
SMEC LABOR INCL HQ:--	175,810	32,448	269,812	35,021	513,091	13,130,031	6,717,722	6,412,309
SMEC LABOR-FOC	46,728	11,309	585	0	58,622	1,652,589	67,488	1,585,101
							<u>678,520</u>	
WALSH CONSTR. CO. :AE:	7,472	312	146,213	10,991	164,988	12,591,605	11,798,843	792,762
ITT GRINNELL-PIPE :AP:	73,787	19,806	190,297	52,617	336,507	10,358,678	7,670,640	2,688,038
L.K. CONSTACK :AT:	21,977	4,489	158,294	43,627	228,387	4,489,631	3,808,146	681,485
S/H/S :M1:	888	73	16,556	3,002	20,519	1,003,811	939,398	64,413
SCHNEIDER POWER :AM:	3,227	517	24,887	8,740	37,371	555,633	476,539	79,094
JOHNSON CONTROLS :AR:	17,593	5,693	43,119	13,287	79,692	725,138	455,844	269,294
REACTOR CONTROLS :AM:	2,547	408	14,878	1,747	19,580	275,568	218,216	57,352
B.E. - TURB. GEN. :BN:	1,740	246	13,403	1,883	17,272	273,464	234,958	38,506
GIVES STL. :BF:	504	29	2,061	0	2,594	502,137	431,771	70,366
H.H. ROBERTSON :CF:	0	0	561	0	561	63,279	61,831	1,448
PLIMOUTH MGMT. :AK:	160	0	560	0	720	38,602	34,400	4,202
ZURN IND. :HM:	0	0	0	0	0	380,370	323,020	57,350
CENTRAL CITY ROOF :AH:	0	0	278	0	278	13,581	13,581	0
R.A. KEASBEY :AQ:	0	0	1,052	0	1,052	8,357	7,812	545
DIAMOND PWR :BQ:	360	0	240	0	600	600	240	360
TUSCARORA :BA:	640	0	2,568	0	3,208	31,962	26,983	4,979
GRINNELL FP-H2O :AI:	320	0	1,794	0	2,114	43,582	36,147	7,435
GRINNELL FP-CO2 :BI:	0	0	145	0	146	14,320	13,149	1,171
GRINNELL FP-HALON :CI:	0	0	0	0	0	3,251	2,698	553
VIKING FP-RW :BI:	0	0	392	0	392	3,208	2,608	600
MAUGHTON ELEVATOR :HM:	0	0	64	0	64	4,131	4,131	0
PULLMAN PWR :AJ:	400	0	2,889	0	3,369	12,667	10,147	2,520
RANDALL EL.-CL TWR :BT:	0	0	1,883	0	1,883	7,388	7,348	40
METAL CLADDING :EM:	0	0	0	0	0	18,936	15,400	3,536
DAVIS FETCH :MM:	0	0	8	0	8	834	834	0
CASTALDO :AT:	200	8	1,855	0	2,063	31,942	30,020	1,922
GENES AIR COND. :U2:	0	0	596	0	596	6,395	6,395	0
INACT/COMPL CONTR. :--:	0	0	0	0	0	2,417,945	2,067,416	350,529
TOTAL FOR AUG-1984	354,433	75,338	894,991	170,915	1,495,677			
CUMUL JULY-1984	11,294,506	1,451,633	30,314,810	4,103,009	47,163,958			
CUMUL AUG-1984	11,648,929	1,526,971	31,209,801	4,273,924	48,659,635	48,659,635	35,483,725	13,175,910

EXCLUDES:

Includes:

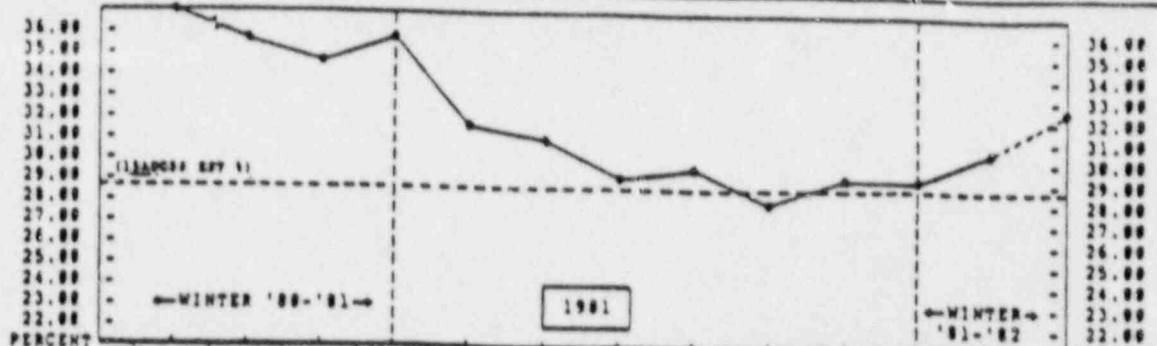
TOTAL PROJECT MANHOURS 4/15/84 ESTIMATE

1) J.C. No. 12829 1) Backcharges
2) Hours paid not worked

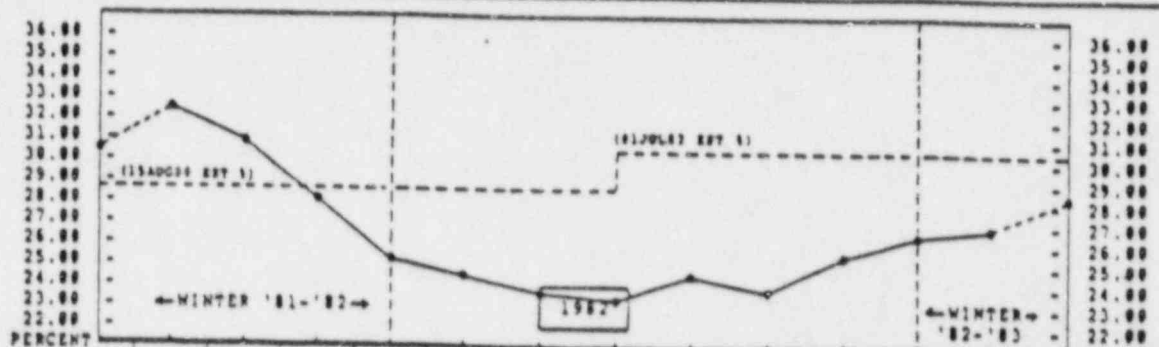
MANUAL (INCLUDES AFI & CONTINGENCIES) 41,788,390
SMEC NON-MANUAL (EXCLUDES FOC) 8,565,541

WINE HILE POINT NUCLEAR STATION - UNIT 2

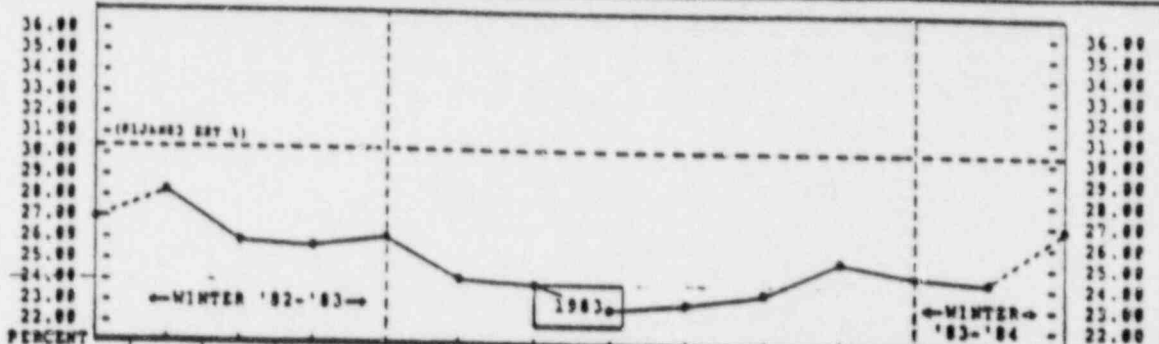
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MONTHLY PERCENTAGE OF
DISTRIBUTABLE HOURS TO TOTAL HOURS

	JAN	FEB	MAR	*APR	MAY	JUN	*JUL	AUG	*SEP	OCT	NOV	*DEC
DISTRIB HOURS	27.44	34.52	34.37	31.22	33.00	34.73	34.78	34.28	34.60	34.31	34.33	34.34
TOTAL HOURS	96.48	102.62	113.87	173.35	170.94	214.36	238.88	230.10	143.85	264.94	370.47	401.34
DISTRIB PERCENT	28.54	33.72	30.17	35.84	31.63	30.99	29.19	29.97	27.99	29.25	29.18	30.83

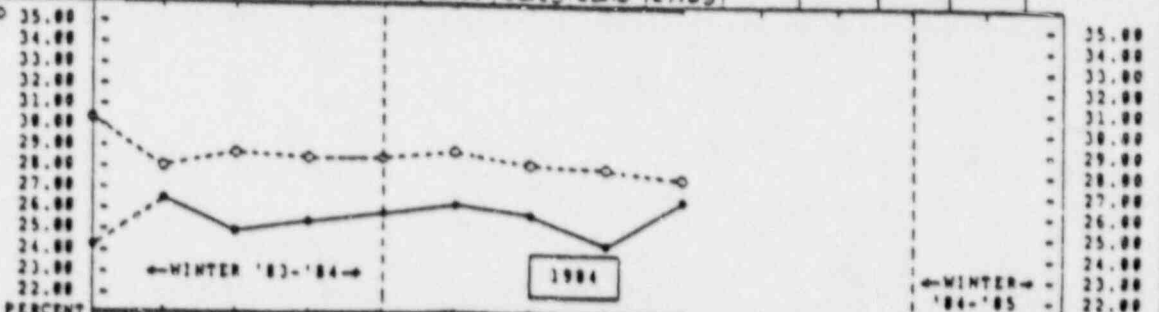


	JAN	FEB	MAR	*APR	MAY	JUN	*JUL	AUG	*SEP	OCT	NOV	*DEC
DISTRIB HOURS	30.43	35.24	37.23	34.50	34.95	34.87	34.34	34.23	34.10	34.54	34.93	34.82
TOTAL HOURS	373.27	434.20	486.07	404.24	357.57	347.63	483.03	373.47	464.12	565.97	604.70	681.84
DISTRIB PERCENT	32.54	30.96	28.19	25.36	24.66	25.72	23.30	24.62	23.92	25.54	24.97	26.07



	JAN	FEB	*MAR	APR	MAY	*JUN	JUL	AUG	*SEP	OCT	NOV	*DEC
DISTRIB HOURS	140.18	146.55	160.24	170.42	177.70	218.27	181.46	158.00	187.54	172.16	177.25	224.40
TOTAL HOURS	474.22	504.24	478.85	494.16	731.40	894.40	666.98	662.88	792.24	660.30	764.93	923.40
DISTRIB PERCENT	28.27	25.47	25.79	26.20	24.30	24.42	22.86	23.04	23.68	25.22	24.97	24.30

DYNAMIC EST HCY (MOO 1) 26.06 28.70 28.60 28.61 28.83 26.23 26.13 27.63



	JAN	*FEB	MAR	*APR	MAY	JUN	JUL	*AUG	SEP	OCT	*NOV	DEC
DISTRIB HOURS	176.29	172.31	173.09	174.60	174.96	206.47	192.00	203.39				
TOTAL HOURS	644.74	678.89	710.03	733.24	764.42	800.04	786.70	870.25				
DISTRIB PERCENT	24.54	25.00	25.53	25.88	24.76	25.83	24.94	24.68				

L.K. COMSTOCK COMPANY - NMP2

1984 *DYNAMIC PERCENT COMPLETE PLAN

PROGRESS UPDATE - AUGUST 19, 1984

L.K. COMSTOCK COMPANY		1984 PLAN		1984 EARNED DIRECTS				1984 EXPENDED (ACTUAL)				1984 EXPENDED (EFFECTIVE)			
MONTH	DEC 1983	INCR1	2,280,270	INCR1	VAR+(-)	2,280,270	VAR+(-)	2,311,108	VAR+(-)	A.R.R.		N/A	VAR+(-)	E.R.R.	
(5 weeks)	(1166.103)	A1(2)	D1 DCMS	C1(2)	(C-A1)	D1 DCWP	(D-B1)	F1 ACMP	(D-F1)	(F/D1)		F1 ECMP	(D-F1)	(F/D1)	
JANUARY	CURRENT	2.41	98,000	2.56	0.15	104,186	6,186	107,174	(2,988)	1.0287		N/A	N/A	N/A	
(1166.103)	CUM 1984	2.41	98,000	2.56	0.15	104,186	6,186	107,174	(2,988)	1.0287		N/A	N/A	N/A	
	CUM TOTAL	58.43	2,378,270	58.58	0.15	2,384,456	6,186	2,418,282	(33,826)	1.0142		N/A	N/A	N/A	
FEBRUARY	CURRENT	3.14	128,000	4.20	1.14	174,292	46,292	175,685	(1,393)	1.0080		N/A	N/A	N/A	
(1166.293)	CUM 1984	5.55	226,000	6.84	1.29	278,478	52,478	282,859	(4,381)	1.0157		N/A	N/A	N/A	
	CUM TOTAL	61.57	2,506,270	62.86	1.29	2,558,748	52,478	2,593,967	(35,219)	1.0118		N/A	N/A	N/A	
MARCH	CURRENT	2.50	102,000	3.46	0.95	140,660	38,660	148,681	(8,021)	1.0570		N/A	N/A	N/A	
(1169.271)	CUM 1984	8.06	328,000	10.10	2.05	411,340	83,340	431,540	(20,200)	1.0491		N/A	N/A	N/A	
	CUM TOTAL	64.08	2,608,270	66.13	2.05	2,691,610	83,340	2,742,640	(51,030)	1.0190		N/A	N/A	N/A	
APRIL	CURRENT	2.48	101,000	3.39	0.91	138,018	37,018	152,969	(14,951)	1.1083		N/A	N/A	N/A	
(1169.291)	CUM 1984	10.54	429,000	13.50	2.96	549,358	120,358	584,509	(35,151)	1.0640		N/A	N/A	N/A	
	CUM TOTAL	66.56	2,709,270	69.52	2.96	2,829,628	120,358	2,895,617	(65,989)	1.0213		N/A	N/A	N/A	
MAY	CURRENT	2.97	121,000	3.92	0.95	159,785	38,785	179,732	(19,947)	1.1248		N/A	N/A	N/A	
(1156.103)	CUM 1984	13.51	550,000	17.42	3.91	709,143	159,143	764,241	(55,098)	1.0777		N/A	N/A	N/A	
	CUM TOTAL	69.53	2,830,270	73.44	3.91	2,989,413	159,143	3,075,349	(85,936)	1.0287		N/A	N/A	N/A	
JUNE	CURRENT	2.21	90,000	3.00	0.79	122,074	32,074	142,967	(20,893)	1.1712		N/A	N/A	N/A	
(1156.103)	CUM 1984	15.72	640,000	20.42	4.70	831,217	191,217	907,208	(75,991)	1.0914		N/A	N/A	N/A	
	CUM TOTAL	71.74	2,920,270	76.44	4.70	3,111,487	191,217	3,218,316	(106,829)	1.0343		N/A	N/A	N/A	
JULY	CURRENT	1.82	74,000	3.06	1.24	124,416	50,416	141,805	(17,469)	1.1404		N/A	N/A	N/A	
(1156.021)	CUM 1984	17.54	714,000	23.48	5.94	955,633	241,633	1,049,093	(93,460)	1.0978		N/A	N/A	N/A	
	CUM TOTAL	73.56	2,994,270	79.50	5.94	3,235,903	241,633	3,360,201	(124,298)	1.0384		N/A	N/A	N/A	
AUGUST	CURRENT	1.92	78,000	4.10	2.19	167,119	89,119	184,107	(16,988)	1.1016		N/A	N/A	N/A	
(1156.021)	CUM 1984	19.46	792,000	27.58	8.12	1,122,752	330,752	1,233,200	(110,448)	1.0984		N/A	N/A	N/A	
	CUM TOTAL	75.48	3,072,270	83.60	8.12	3,403,022	330,752	3,544,388	(141,286)	1.0415		N/A	N/A	N/A	
SEPTEMBER	CURRENT	1.23	50,000												
	CUM 1984	20.68	842,000												
	CUM TOTAL	76.71	3,122,270												
OCTOBER	CURRENT	1.23	50,000												
	CUM 1984	21.91	892,000												
	CUM TOTAL	77.93	3,172,270												
NOVEMBER	CURRENT	1.52	62,000												
	CUM 1984	23.44	954,000												
	CUM TOTAL	79.46	3,234,270												
DECEMBER	CURRENT	0.98	40,000												
	CUM 1984	24.42	994,000												
	CUM TOTAL	80.44	3,274,270												

* CUMULATIVE ADJUSTMENTS:
(1984 CUM & TOTAL CUM)

MAR (DCWP) = (7,798) MHRS

* NOTE: (1) 66.10 Cumulative Percent Complete based on 2,280,270 Total Earned Direct Manhours thru December 1983, calculated against a base of 3,449,924 Total Estimate Direct Manhours, as shown in January. This Cumulative Percent Complete will adjust per Note (2) below.
(2) 1984 Dynamic Planned and Actual Percent Complete will be calculated using the respective current month MOD 1 Estimate as follows:

15JAN84 MOD 1 = 3,449,924 MH 15JUL84 MOD 1 = 4,070,400 MH
19FEB84 MOD 1 = 3,720,588 MH *19AUG84 MOD 1 = 4,070,400 MH
18MAR84 MOD 1 = 3,783,324 MH 16SEP84 MOD 1 = As Identified
15APR84 MOD 1 = 3,782,324 MH 14OCT84 MOD 1 = As Identified
20MAY84 MOD 1 = 4,058,548 MH 18NOV84 MOD 1 = As Identified
17JUN84 MOD 1 = 4,058,548 MH 16DEC84 MOD 1 = As Identified

RKB40125-B

04-Sep-84

L.I. CONSTOCK 1984 PERFORMANCE DATA

AUGUST 1984

CONTRACT TO DATE								CURRENT PERIOD				
	1	2	3	4	5	6	7	8	9	10	11	12
	1/1/83 Estimate	Current MOD 1	Schedule (BCWS)	Actual (ACWP)	Earned (BCWP)	Schedule Variance	Budget Variance	Schedule (BCWS)	Actual (ACWP)	Earned (BCWP)	Schedule Variance	Budget Variance
DIRECTS	12,611,143	14,070,408	N/A	13,544,308	13,403,022	N/A	(141,286)	N/A	1184,107	1167,119	N/A	(16,988)
DISTRIBS	226,560	247,452	N/A	246,626	225,175	N/A	(21,461)	N/A	16,527	8,000	N/A	(8,537)
TOTAL	12,837,703	14,317,860	N/A	13,790,944	13,628,197	N/A	(162,747)	N/A	1200,644	1175,119	N/A	(25,525)

CONTRACT TO DATE											CURRENT PERIOD				
KEY	Estimate	Estimate	%	Planned	Actual	Budget	Actual	Budget	Actual		Current	Budget	Actual	Earned	
INDICATORS	Quantity	Manhours	Comp	Quantity	Quantity	(BCWP)	(ACWP)	Unit	Unit	Rate	Quantity	Rate	(ACWP)	(BCWP)	
1.C.C.P.															
CABLE	18,405,903	1668,180	161.59	13,670,445	14,954,035	1411,523	1468,842	10.083	10.095	11.139	1291,031	10.077	138,401	122,441	
13400-3460															
14301-4420															
1.C.C.P.															
TERMINA	276,665	185,100	140.31	163,179	114,881	74,611	1128,746	10.649	11.121	11.726	13,772	10.626	114,905	8,628	
13500-3599															
14500-4599															
CONDUIT															
14153-4219	842,716	1745,741	102.52	670,127	697,783	1615,301	1611,100	10.882	10.876	10.993	24,033	11.384	136,956	133,272	

WINE MILE POINT NUCLEAR STATION - UNIT 2
L.R. CONSTOCK CO. - KEY INDICATORS

RRR1222-B

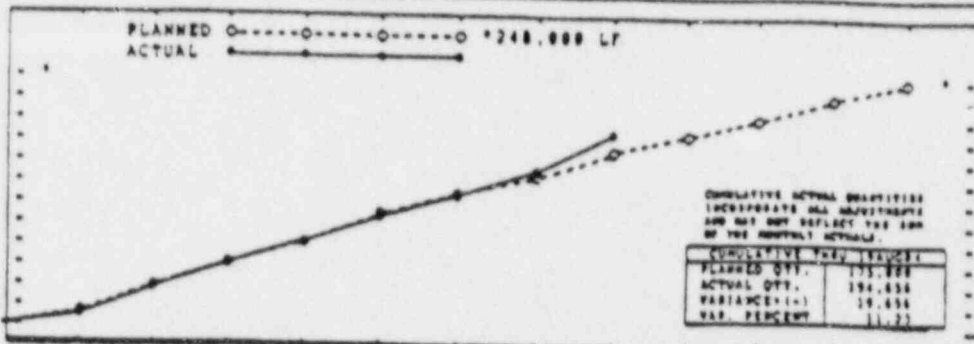
ACTUAL RATE RATIO
(USING ACMP)

1984 QUANTITY INSTALLATION
AND RATE RATIO PERFORMANCE

LRC-Sht 2 of 2

CONDUIT
(LF)

219,800
228,250
207,500
186,750
166,000
145,250
124,500
103,750
83,000
62,250
41,500
20,750
0
CUM EA

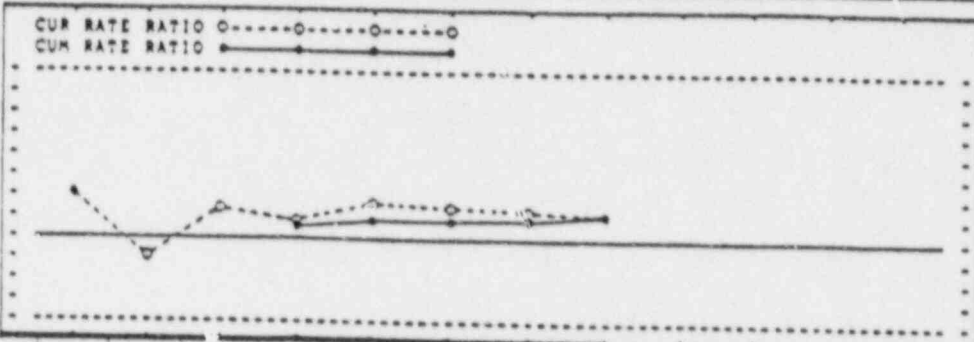


219,800
228,250
207,500
186,750
166,000
145,250
124,500
103,750
83,000
62,250
41,500
20,750
0
CUM EA

	JAN	*FEB	MAR	APR	*MAY	JUN	JUL	*AUG	SEP	OCT	*NOV	DEC
PLANNED QUANTITY	16,000	26,000	22,000	27,000	27,000	22,000	18,000	22,000	18,000	19,000	21,000	19,000
ACTUAL QUANTITY	15,174	26,172	22,817	22,728	21,876	22,998	21,882	21,033				
VARIANCE (+/-)	(826)	172	817	728	(1,124)	998	6,882	2,033				

CONDUIT
(RAT. RATIO)

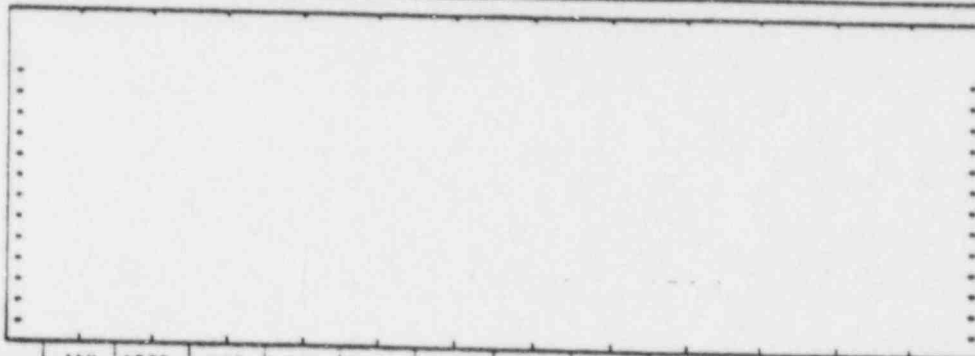
1.8000
1.7000
1.6000
1.5000
1.4000
1.3000
1.2000
1.1000
1.0000
0.9000
0.8000
0.7000
0.6000
ACT RR



1.8000
1.7000
1.6000
1.5000
1.4000
1.3000
1.2000
1.1000
1.0000
0.9000
0.8000
0.7000
0.6000
ACT RR

	JAN	*FEB	MAR	APR	*MAY	JUN	JUL	*AUG	SEP	OCT	*NOV	DEC
CURRENT RATE RATIO	1.210	0.910	1.170	1.084	1.164	1.147	1.138	1.111				
CUMULATIVE RATE RATIO	1.210	N/A	N/A	1.059	1.080	1.090	1.097	1.099				

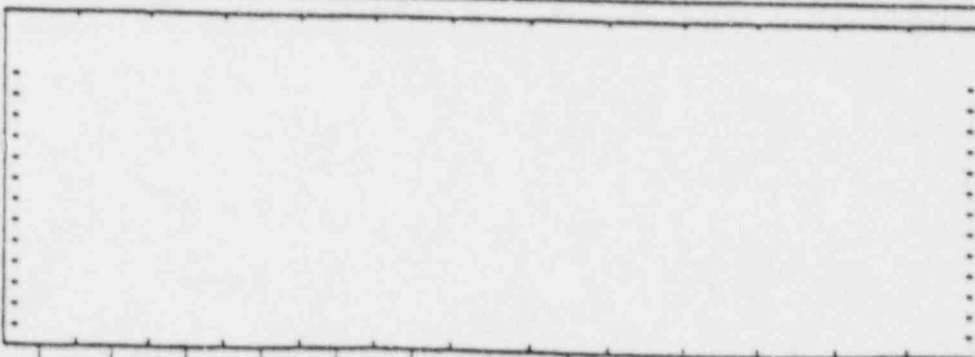
N/A



	JAN	*FEB	MAR	APR	*MAY	JUN	JUL	*AUG	SEP	OCT	*NOV	DEC

*5 weeks

N/A



	JAN	*FEB	MAR	APR	*MAY	JUN	JUL	*AUG	SEP	OCT	*NOV	DEC

*5 weeks

ITT GRINNELL I.P.I. - NHP2

1984 *DYNAMIC PERCENT COMPLETE PLAN

PROGRESS UPDATE - AUGUST 19, 1984

ITT GRINNELL I.P.I.		1984 PLAN		1984 EARNED DIRECTS				1984 EXPENDED (ACTUAL)				1984 EXPENDED (EFFECTIVE)			
MONTH	DEC 1983	INCR1	3,921,361	INCR1	VAR+(-)	3,921,361	VAR+(-)	4,808,630	VAR+(-)	A.R.R.	4,550,592	VAR+(-)	E.R.R.		
(5 weeks)	(1174.90)	A) (2)	B) DCWS	C) (2)	(C-A)	D) DCWP	(D-B)	E) ACWP	(D-E)	(E/D)	F) ECWP	(D-F)	(F/D)		
JANUARY	CURRENT	2.50	132,306	1.54	(1.05)	78,618	(53,768)	181,105	(102,487)	2.3036	166,309	(87,691)	2.1154		
(1)74.90	CUM 1984	2.50	132,306	1.54	(1.05)	78,618	(53,768)	181,104	(102,486)	2.3036	166,309	(87,691)	2.1154		
	CUM TOTAL	79.16	4,053,747	70.11	(1.05)	3,999,979	(53,768)	4,989,734	(989,755)	1.2474	4,516,901	(516,922)	1.1292		
FEBRUARY	CURRENT	3.81	195,100	3.40	(0.33)	177,990	(17,110)	327,921	(149,931)	1.8424	280,372	(102,382)	1.5752		
(1)75.44	CUM 1984	6.40	327,494	5.01	(1.30)	256,608	(70,886)	509,025	(252,417)	1.9837	446,601	(190,873)	1.7407		
	CUM TOTAL	82.97	4,248,855	81.59	(1.30)	4,177,969	(70,886)	5,317,655	(1139686)	1.2720	4,797,273	(619,304)	1.1482		
MARCH	CURRENT	2.69	137,563	2.70	0.01	138,282	719	263,191	(124,909)	1.9033	224,520	(86,246)	1.6232		
(1)75.42	CUM 1984	9.08	465,057	7.71	(1.37)	394,890	(70,167)	772,216	(377,326)	1.9555	671,209	(276,319)	1.6997		
	CUM TOTAL	85.66	4,386,418	84.29	(1.37)	4,316,251	(70,167)	5,580,846	(1264595)	1.2930	5,021,801	(705,550)	1.1635		
APRIL	CURRENT	2.74	140,187	2.14	(0.60)	109,490	(30,697)	261,388	(151,898)	2.3873	227,408	(117,918)	2.0770		
(1)75.42	CUM 1984	11.82	605,244	9.85	(1.97)	504,380	(100,864)	1,033,604	(529,224)	2.0492	890,617	(394,237)	1.7016		
	CUM TOTAL	88.40	4,526,605	86.43	(1.97)	4,425,741	(100,864)	5,842,234	(1416493)	1.3200	5,249,209	(802,468)	1.1861		
MAY	CURRENT	3.18	162,650	2.59	(0.59)	132,605	(30,045)	225,881	(93,276)	1.7034	197,465	(64,860)	1.489		
(1)75.42	CUM 1984	15.00	767,894	12.44	(2.56)	636,985	(130,909)	1,259,485	(622,500)	1.9773	1,096,082	(459,097)	1.7207		
	CUM TOTAL	91.57	4,689,255	89.02	(2.56)	4,558,346	(130,909)	6,068,115	(1509769)	1.3312	5,446,674	(880,320)	1.1949		
JUNE	CURRENT	2.12	100,590	1.66	(0.46)	85,220	(23,370)	164,502	(79,274)	1.9301	144,663	(59,435)	1.6974		
(1)76.96	CUM 1984	17.12	876,492	14.10	(3.01)	722,213	(154,279)	1,423,987	(701,744)	1.9717	1,240,745	(510,532)	1.7180		
	CUM TOTAL	92.69	4,797,853	90.60	(3.01)	4,643,574	(154,279)	6,232,617	(1589043)	1.3422	5,591,337	(947,763)	1.2041		
JULY	CURRENT	1.85	94,772	1.15	(0.70)	58,859	(35,913)	155,619	(96,760)	2.6439	137,272	(78,413)	2.3322		
(1)76.96	CUM 1984	18.97	971,264	15.25	(3.71)	781,072	(190,192)	1,579,606	(790,534)	2.0224	1,378,017	(596,945)	1.7643		
	CUM TOTAL	95.54	4,892,625	91.83	(3.71)	4,702,433	(190,192)	6,388,236	(1605803)	1.3585	5,720,609	(1026176)	1.2182		
AUGUST	CURRENT	2.06	105,760	2.46	0.40	126,167	20,399	219,516	(93,349)	1.7399	192,625	(66,450)	1.5267		
(1)76.58	CUM 1984	21.03	1,077,032	17.72	(3.32)	907,239	(169,793)	1,799,122	(891,883)	1.9831	1,570,642	(663,403)	1.7312		
	CUM TOTAL	97.61	4,998,385	94.29	(3.32)	4,828,600	(169,793)	6,607,752	(1779152)	1.3685	5,921,234	(1092624)	1.2263		
SEPTEMBER	CURRENT	1.36	69,473												
	CUM 1984	22.39	1,146,505												
	CUM TOTAL	98.97	5,067,858												
OCTOBER	CURRENT	1.00	51,475												
	CUM 1984	23.39	1,197,980												
	CUM TOTAL	99.97	5,119,341												
NOVEMBER	CURRENT	0.89	45,553												
	CUM 1984	24.20	1,243,533												
	CUM TOTAL	100.8	5,164,894												
DECEMBER	CURRENT	0.37	19,184												
	CUM 1984	24.66	1,262,717												
	CUM TOTAL	101.2	5,184,078												

1 CUMULATIVE ADJUSTMENTS:
(1984 CUM & TOTAL CUM)

AUG - NONE TO DATE

* NOTE: (1) 74.90 Cumulative Percent Complete based on 3,921,361 Total Earned Direct Manhours thru December 1983, calculated against a base of 5,235,396 Total Estimate Direct Manhours, as shown in January. This Cumulative Percent Complete will adjust per Note (2) below.
(2) 1984 Dynamic Planned and Actual Percent Complete will be calculated using the respective current month MOD 1 Estimate as follows:
15JAN84 MOD 1 = 5,235,396 MH 15JUL84 MOD 1 = 5,095,361 MH
19FEB84 MOD 1 = 5,197,879 MH 19AUG84 MOD 1 = 5,120,755 MH
18MAR84 MOD 1 = 5,199,567 MH 16SEP84 MOD 1 = As Identified
15APR84 MOD 1 = 5,199,567 MH 14OCT84 MOD 1 = As Identified
20MAY84 MOD 1 = 5,199,567 MH 18NOV84 MOD 1 = As Identified
17JUN84 MOD 1 = 5,095,361 MH 16DEC84 MOD 1 = As Identified

RK840125-C

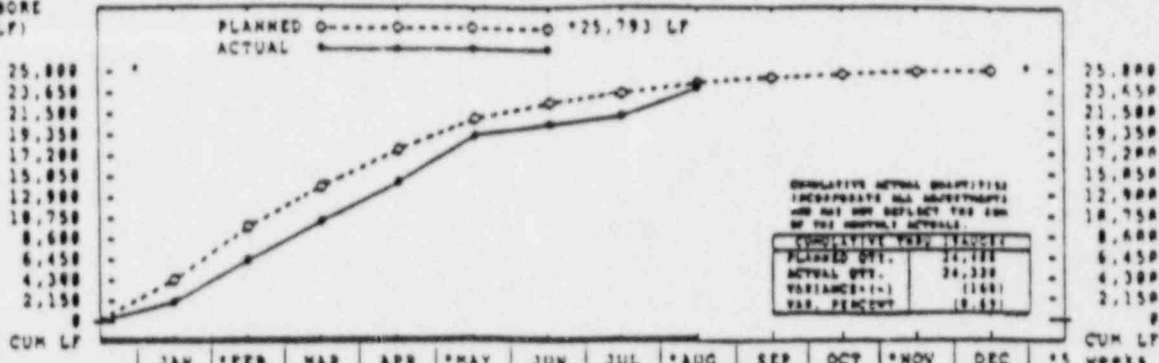
CONTRACT TO DATE													CURRENT PERIOD				EFFECTIVE FACTOR = 0.875
1	2	3	4	5	6	7	8	9	10	11	12						
1/1/85 Estimate	Current MOD 1	Schedule (HCMS)	ACMP	Earned (HCMP)	Schedule Variance (ACMP/ECMP)	Budget Variance (ACMP/ECMP)	Schedule (HCMS)	ACMP	Earned (HCMP)	Schedule Variance (ACMP/ECMP)	Budget Variance (ACMP/ECMP)						
DIRECTS 5,321,167	5,120,755	N/A	16,607,752	4,820,600	N/A	11,779,152	N/A	1219,516	126,167	N/A	193,349						
			15,921,234			11,092,634		192,625			166,458						
DISTRIB 853,929	11,012,099	N/A	972,370	800,130	N/A	1172,240	N/A	27,127	16,500	N/A	110,627						
			884,007			883,877		23,804			17,304						
TOTAL 5,175,096	16,132,845	N/A	17,580,122	5,620,730	N/A	11,951,392	N/A	1246,643	142,667	N/A	1103,976						
			16,805,241			11,176,511		1216,429			173,762						
													CURRENT PERIOD				

EFFECTIVE RATE RATIO
(USING ECMP)

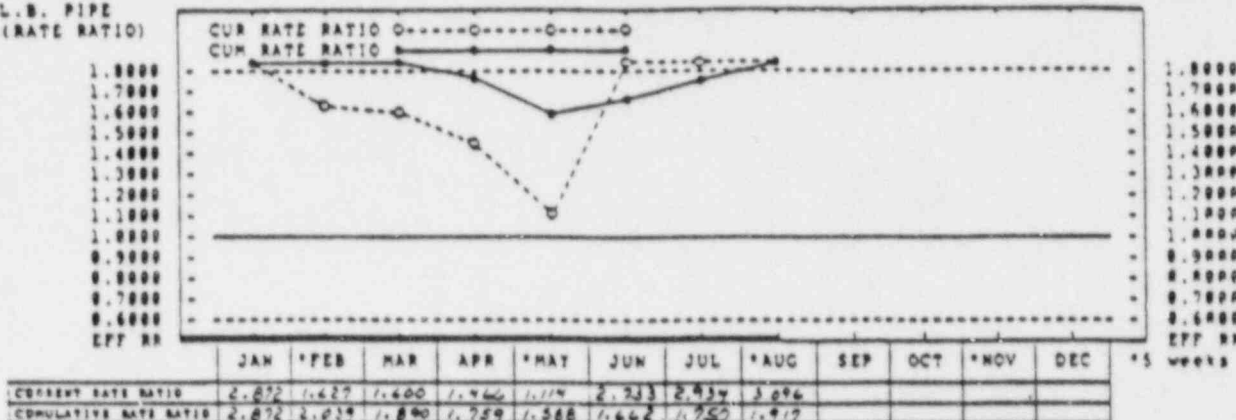
1984 QUANTITY INSTALLATION
AND RATE RATIO PERFORMANCE

177-SN1 1of1

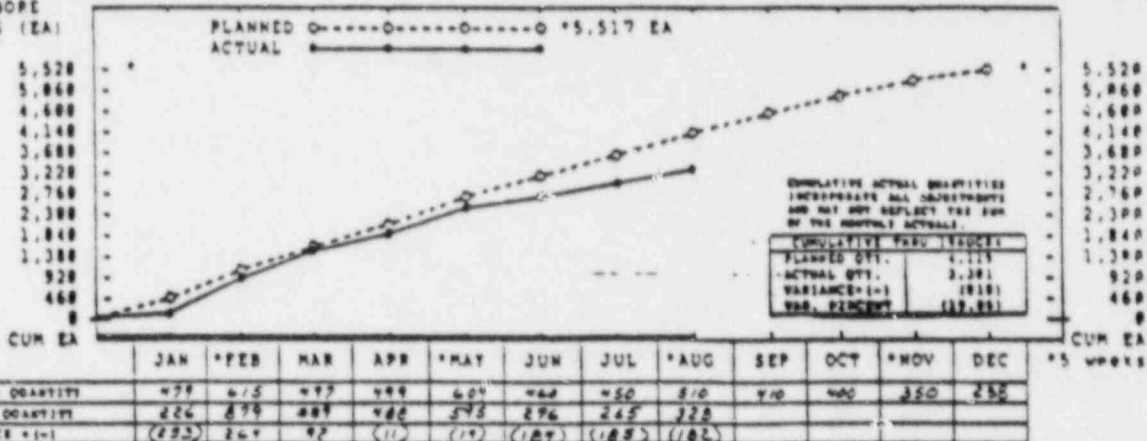
LARGE BORE
PIPE (LP)



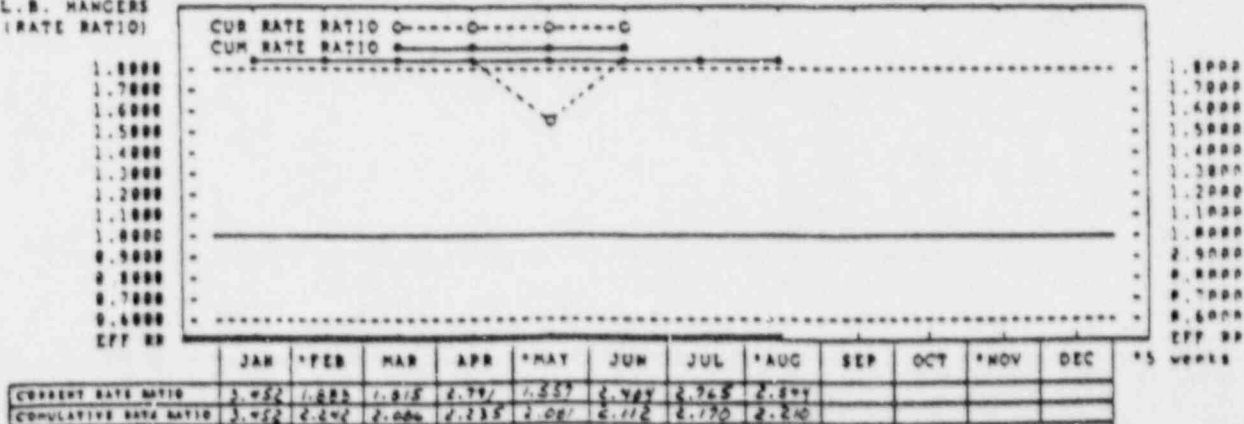
L.B. PIPE
(RATE RATIO)



LARGE BORE
HANGERS (EA)



L.B. HANGERS
(RATE RATIO)



NINE MILE POINT NUCLEAR STATION - UNIT 2
 ITT GRINWELL I.P.I. - KEY INDICATORS

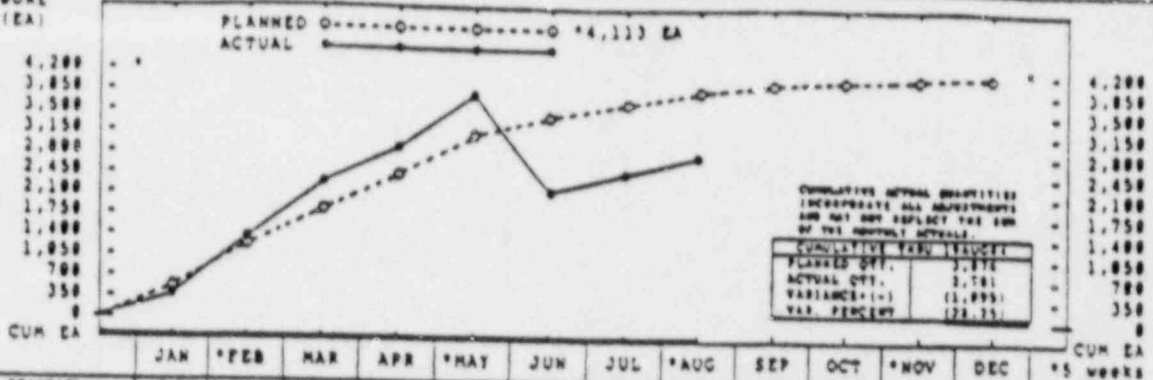
8848227-D

EFFECTIVE RATE RATIO
 (USING ECWP)

1984 QUANTITY INSTALLATION
 AND RATE RATIO PERFORMANCE

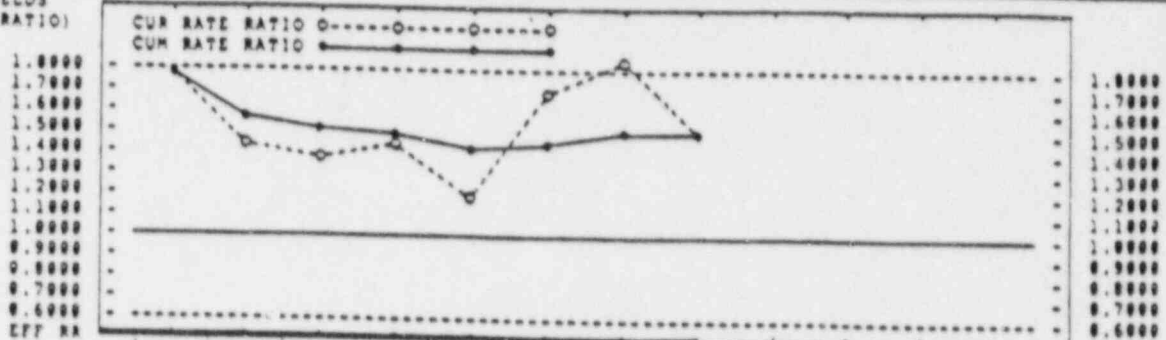
ITT-SNL 2013

LARGE BORE
 WELDS (EA)



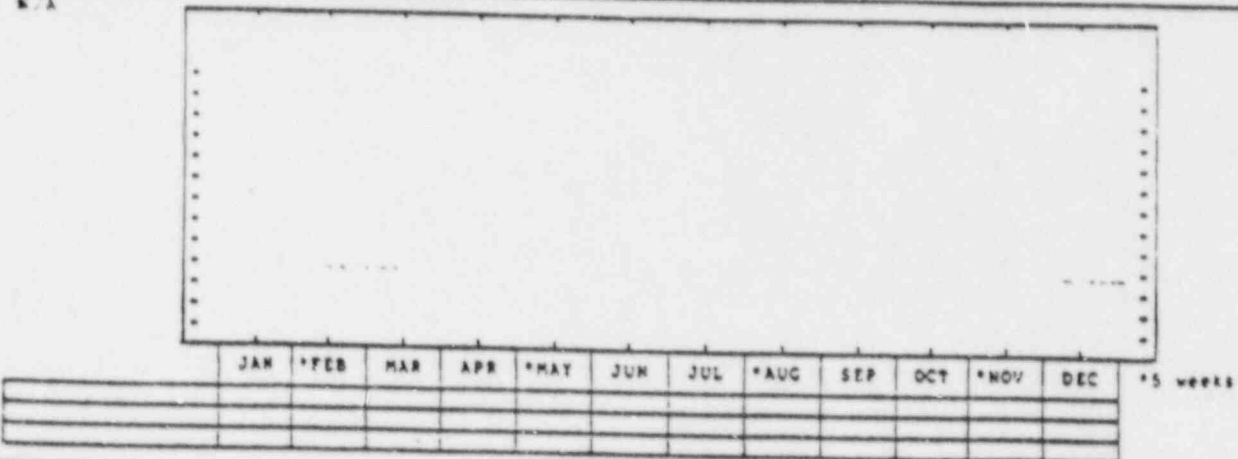
	JAN	*FEB	MAR	APR	*MAY	JUN	JUL	*AUG	SEP	OCT	*NOV	DEC
PLANNED QUANTITY	550	700	600	600	844	700	272	220	110	71	28	22
ACTUAL QUANTITY	55	920	739	679	936	511	265	803				
VARIANCE (+/-)	(55)	220	139	79	372	111	123	63				

L.B. WELDS
 (RATE RATIO)

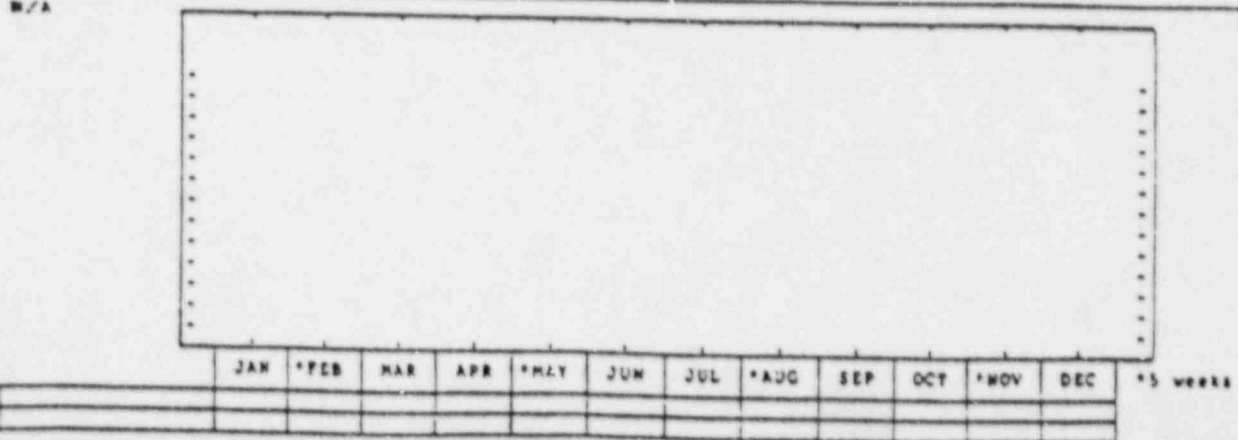


	JAN	*FEB	MAR	APR	*MAY	JUN	JUL	*AUG	SEP	OCT	*NOV	DEC
CURRENT RATE RATIO	1.786	1.451	1.381	1.440	1.185	1.494	2.465	1.507				
CUMULATIVE RATE RATIO	1.786	1.670	1.810	1.788	1.765	1.751	1.504	1.804				

N/A



N/A



177-544 3013

21,360
19,500
17,800
16,020
14,240
12,460
10,680
8,900
7,120
5,340
3,560
1,780

CUM L
95 weeks

1.8000
1.7000
1.6000
1.5000
1.4000
1.3000
1.2000
1.1000
1.0000
0.9000
0.8000
0.7000
0.6000

*5 weeks

5,640
5,170
4,700
4,230
3,760
3,290
2,820
2,350
1,880
1,410
940
470

*5 weeks

1.8000
1.7000
1.6000
1.5000
1.4000
1.3000
1.2000
1.1000
1.0000
0.9000
0.8000
0.7000
0.6000

*3 weeks

STONE & WEBSTER ENGRG. CORP. - NHP2

1984 *DYNAMIC PERCENT COMPLETE PLAN

PROGRESS UPDATE - AUGUST 19, 1984

STONE & WEBSTER ENGRG		1984 PLAN			1984 *EARNED DIRECTS				1984 EXPENDED (ACTUAL)				1984 EXPENDED (EFFECTIVE)		
MONTH	DEC 1983	INCR1	1,721,723	INCR1	VAR+(-)	1,721,723	VAR+(-)		1,828,611	VAR+(-)	A.R.R.		N/A	VAR+(-)	E.R.R.
(5 WEEKS)	(1166.893)	AI(2)	DI BCWS	CI(2)	(C-A)	DI BCWP	(D-B)		E) ACWP	(D-E)	(E/D)	F)	ECWP	(D-F)	(F/D)
JANUARY	CURRENT	1.43	60,000	1.83	0.40	76,633	16,633		86,424	(9,791)	1.1278		N/A	N/A	N/A
	CUM 1984	1.43	60,000	1.83	0.40	76,633	16,633		86,424	(9,791)	1.1278		N/A	N/A	N/A
	CUM TOTAL	42.54	1,781,723	42.94	0.40	1,798,356	16,633		1,915,035	(116,679)	1.0649		N/A	N/A	N/A
FEBRUARY	CURRENT	2.17	91,000	2.81	0.64	117,706	26,706		152,109	(34,403)	1.2923		N/A	N/A	N/A
	CUM 1984	3.60	151,000	4.64	1.03	194,339	43,339		238,534	(44,195)	1.2274		N/A	N/A	N/A
	CUM TOTAL	44.71	1,872,723	45.75	1.03	1,916,062	43,339		2,067,145	(151,083)	1.0708		N/A	N/A	N/A
MARCH	CURRENT	1.99	83,200	2.37	0.38	99,209	16,009		133,119	(33,910)	1.3410		N/A	N/A	N/A
	CUM 1984	5.59	234,200	7.01	1.42	293,548	59,348		371,653	(78,105)	1.2661		N/A	N/A	N/A
	CUM TOTAL	46.70	1,955,923	48.12	1.42	2,015,271	59,348		2,200,264	(184,993)	1.0910		N/A	N/A	N/A
APRIL	CURRENT	1.85	77,659	2.86	1.00	119,640	41,981		143,006	(23,366)	1.1953		N/A	N/A	N/A
	CUM 1984	7.45	311,859	9.86	2.42	413,188	101,329		514,659	(101,471)	1.2456		N/A	N/A	N/A
	CUM TOTAL	48.55	2,033,582	50.97	2.42	2,134,911	101,329		2,343,270	(208,359)	1.0976		N/A	N/A	N/A
MAY	CURRENT	1.90	79,573	4.72	2.82	197,841	118,268		176,017	21,024	0.8937		N/A	N/A	N/A
	CUM 1984	9.34	391,432	20.50	11.15	850,553	467,121		691,476	167,077	0.8054		N/A	N/A	N/A
	CUM TOTAL	50.45	2,113,155	61.61	11.15	2,508,276	467,121		2,520,007	60,189	0.9767		N/A	N/A	N/A
JUNE	CURRENT	1.52	63,692	3.57	2.05	149,558	85,866		139,930	9,628	0.9356		N/A	N/A	N/A
	CUM 1984	10.87	455,124	24.07	13.20	1,000,111	552,987		831,406	176,705	0.8247		N/A	N/A	N/A
	CUM TOTAL	51.97	2,176,847	65.18	13.20	2,729,834	552,987		2,660,017	69,817	0.9744		N/A	N/A	N/A
JULY	CURRENT	1.41	59,179	3.24	1.82	135,549	76,370		152,352	(16,803)	1.1240		N/A	N/A	N/A
	CUM 1984	12.28	514,303	27.31	15.03	1,143,660	629,357		983,758	159,902	0.8602		N/A	N/A	N/A
	CUM TOTAL	53.39	2,236,026	68.41	15.03	2,865,383	629,357		2,812,360	53,015	0.9815		N/A	N/A	N/A
AUGUST	CURRENT	1.77	73,973	4.82	3.06	202,094	128,121		188,938	13,156	0.9349		N/A	N/A	N/A
	CUM 1984	14.04	588,276	32.13	18.08	1,345,754	757,478		1,172,696	173,058	0.8714		N/A	N/A	N/A
	CUM TOTAL	55.15	2,309,999	73.24	18.08	3,067,477	757,478		3,001,306	66,171	0.9784		N/A	N/A	N/A
SEPTEMBER	CURRENT	1.36	57,099												
	CUM 1984	15.41	645,375												
	CUM TOTAL	56.52	2,367,098												
OCTOBER	CURRENT	1.27	53,070												
	CUM 1984	16.68	698,445												
	CUM TOTAL	57.79	2,420,168												
NOVEMBER	CURRENT	1.58	66,173												
	CUM 1984	18.26	764,618												
	CUM TOTAL	59.36	2,486,341												
DECEMBER	CURRENT	1.10	46,063												
	CUM 1984	19.36	810,681												
	CUM TOTAL	60.46	2,532,404												

NK840125-D

* CUMULATIVE ADJUSTMENTS:
(1984 CUM & TOTAL CUM)

MAY (BCWP) = 247,524 MHRS

* NOTE: (1) 66.89 Cumulative Percent Complete based on 1,721,723 Total Earned Direct Manhours thru December 1983, calculated against a base of 2,573,919 Total Estimate Direct Manhours, as shown in January. This Cumulative Percent Complete will adjust per Note (2) below.
(2) 1984 Dynamic Planned and Actual Percent Complete will be calculated using the respective current month MOD 1 Estimate as follows:
15JAN84 MOD 1 = 2,573,919 MH 15JUL84 MOD 1 = 4,088,453 MH
19FEB84 MOD 1 = 3,027,917 MH *19AUG84 MOD 1 = 4,188,261 MH
18MAR84 MOD 1 = 3,027,917 MH 16SEP84 MOD 1 = As Identified
15APR84 MOD 1 = 3,027,917 MH 14OCT84 MOD 1 = As Identified
20MAY84 MOD 1 = 4,090,105 MH 18NOV84 MOD 1 = As Identified
17JUN84 MOD 1 = 4,088,453 MH 16DEC84 MOD 1 = As Identified

05-Sep-84

SMC PERFORMANCE DATA

AUGUST 1984

	CUMULATIVE						CURRENT PERIOD					
	1	2	3	4	5	6	7	8	9	10	11	12
	1/1/83 Estimate	Current MOD 1	Schedule (BCWS)	Actual (ACWP)	Earned (BCWP)	Schedule Variance	Budget Variance	Schedule (BCWS)	Actual (ACWP)	Earned (BCWP)	Schedule Variance	Budget Variance
DIRECTS	1,197,664	4,180,261	N/A	13,001,306	13,067,477	N/A	66,171	N/A	1188,938	1202,094	N/A	13,156
DISTRIBS	13,273,132	4,692,498	N/A	13,572,245	13,504,481	N/A	(67,764)	N/A	92,398	67,716	N/A	(124,682)
TOTAL	14,470,796	8,880,759	N/A	16,573,551	16,571,958	N/A	(1,593)	N/A	1281,336	1269,810	N/A	(11,526)

CUMULATIVE											CURRENT PERIOD			
KEY INDICATORS	Estimate Quantity	Estimate Manhours	% Comp	Planned Quantity	Actual Quantity	Budget (BCWP)	Actual (ACWP)	Budget Unit Rate	Actual Unit Rate	Rate Ratio	Current Quantity	Budget Unit Rate	Actual (ACWP)	Earned (BCWP)
S.B. PIPING (6011-6091) LF	78,257	1,533,691	156.79	N/A	46,683	1,302,594	1,235,714	16.481	15.049	10.779	7,996	17.261	34,051	58,065
S.B. HANGERS (7033) EA	12,911	518,276	141.59	N/A	5,455	1,215,539	1,233,338	139.51	142.77	11.083	620	145.90	29,412	28,464
ICAT 213 HANGER (8913) EA	7,812	1,156,000	109.04	N/A	6,221	1,138,906	1,138,906	122.32	122.32	11.000	954	126.62	25,398	25,398

SWEC-SAL 1012

CUM LF
*5 weeks

ACT 20
#3 weeks

CUM EA
* 5 weeks

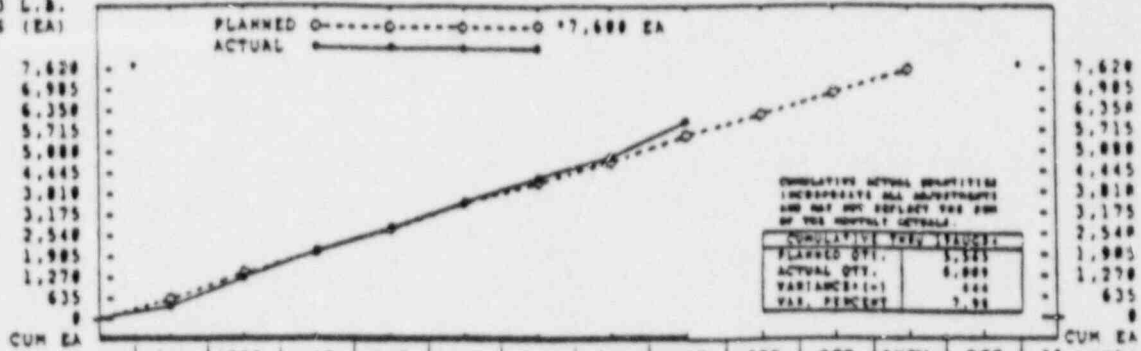
ACT 88
15 weeks

ACTUAL RATE RATIO
(USING ACWP)

1984 QUANTITY INSTALLATION
AND RATE RATIO PERFORMANCE

SWEC-Sht 2012

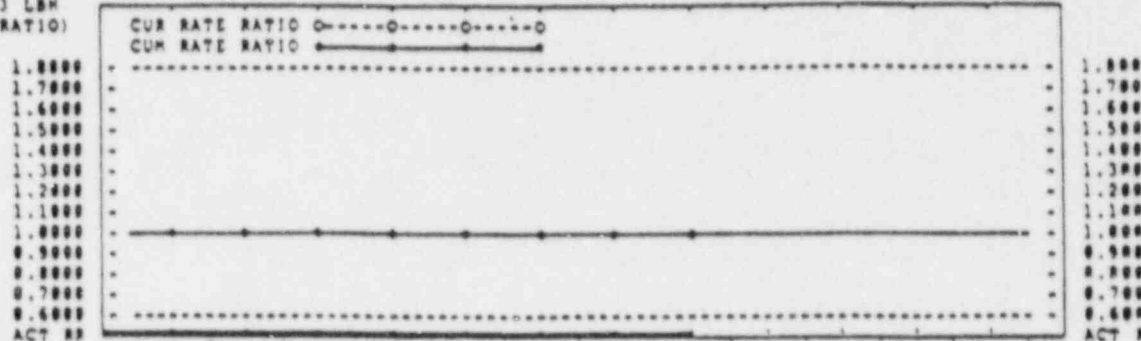
CAT 243 L.B.
HANGERS (EA)



	JAN	*FEB	MAR	APR	*MAY	JUN	JUL	*AUG	SEP	OCT	*NOV	DEC
PLANNED QUANTITY	636	795	636	636	795	636	636	795	636	636	795	0
ACTUAL QUANTITY	425	819	776	699	827	781	748	954				
VARIANCE (+/-)	(211)	24	140	63	32	145	112	159				

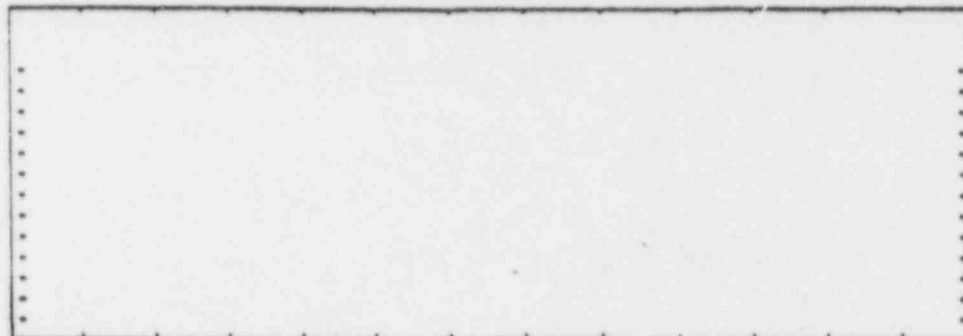
CUMULATIVE ACTUAL QUANTITIES INCORPORATE ALL ADJUSTMENTS AND MAY NOT REFLECT THE SUM OF THE MONTHLY ACTUALS	
PLANNED QTY.	5,583
ACTUAL QTY.	8,000
VARIANCE (+/-)	2,417
VAR. PERCENT	43.3

CAT 243 LBH
(RATE RATIO)



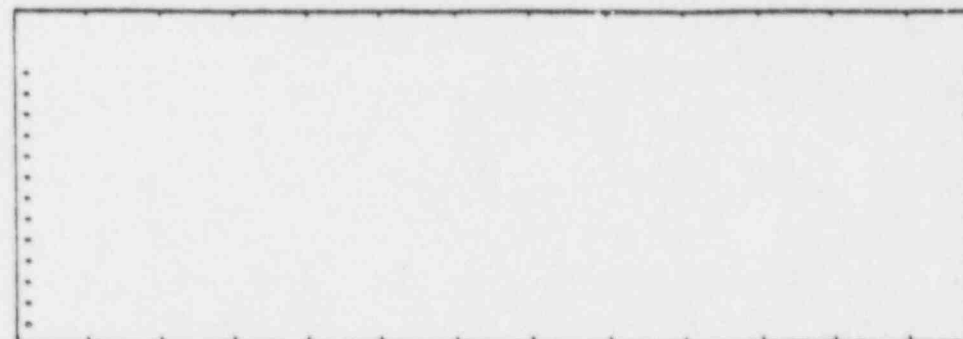
	JAN	*FEB	MAR	APR	*MAY	JUN	JUL	*AUG	SEP	OCT	*NOV	DEC
CURRENT RATE RATIO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
CUMULATIVE RATE RATIO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				

N/A



JAN *FEB MAR APR *MAY JUN JUL *AUG SEP OCT *NOV DEC *5 weeks

N/A



JAN *FEB MAR APR *MAY JUN JUL *AUG SEP OCT *NOV DEC *5 weeks

JOHNSON CONTROLS, INC. - NMP2

1984 *DYNAMIC PERCENT COMPLETE PLAN

PROGRESS UPDATE - AUGUST 19, 1984

JOHNSON CONTROLS, INC.		1984 PLAN		1984 EARNED DIRECTS				1984 EXPENDED (ACTUAL)				1984 EXPENDED (EFFECTIVE)			
MONTH	DEC 1983	INCR1	144,074	INCR1	VAR+(-)	144,074	VAR+(-)		172,051	VAR+(-)	A.P.R.		N/A	VAR+(-)	E.R.R.
(5 weeks)	(1)25.58%	A) (2)	BCWS	C) (2)	(C-A)	D) BCWP	(D-B)	E)	ACWP	(D-E)	(E/D)	F)	ECWP	(D-F)	(F/D)
* JANUARY	CURRENT	2.63	14,000	1.62	(1.01)	8,644	(5,356)	14,001	(5,437)	1.6290	N/A	N/A	N/A		
	CUM 1984	2.63	14,000	1.62	(1.01)	8,644	(5,356)	14,001	(5,437)	1.6290	N/A	N/A	N/A		
	CUM TOTAL	29.68	158,074	20.67	(1.01)	152,718	(5,356)	186,132	(33,414)	1.2168	N/A	N/A	N/A		
* FEBRUARY	CURRENT	4.32	23,000	2.72	(1.60)	14,503	(8,497)	26,580	(12,077)	1.8327	N/A	N/A	N/A		
	CUM 1984	6.95	37,000	4.34	(2.60)	23,147	(13,853)	40,661	(17,514)	1.7566	N/A	N/A	N/A		
	CUM TOTAL	34.00	181,074	31.40	(2.60)	167,221	(13,853)	212,712	(45,491)	1.2720	N/A	N/A	N/A		
* MARCH	CURRENT	3.94	21,000	2.58	(1.36)	13,760	(7,240)	24,576	(10,816)	1.7860	N/A	N/A	N/A		
	CUM 1984	10.89	58,000	6.93	(3.96)	36,907	(21,093)	65,237	(28,330)	1.7676	N/A	N/A	N/A		
	CUM TOTAL	37.94	202,074	33.98	(3.96)	180,981	(21,093)	237,288	(56,307)	1.3111	N/A	N/A	N/A		
* APRIL	CURRENT	4.32	23,000	2.98	(1.33)	15,896	(7,104)	26,394	(10,498)	1.6604	N/A	N/A	N/A		
	CUM 1984	15.21	81,000	9.91	(5.29)	52,803	(28,197)	91,631	(38,828)	1.7353	N/A	N/A	N/A		
	CUM TOTAL	42.26	225,074	36.97	(5.29)	196,877	(28,197)	263,682	(66,805)	1.3393	N/A	N/A	N/A		
* MAY	CURRENT	6.38	34,000	5.14	(1.24)	27,367	(6,633)	35,881	(8,514)	1.3111	N/A	N/A	N/A		
	CUM 1984	21.59	115,000	15.05	(6.54)	80,170	(34,830)	127,512	(47,342)	1.5905	N/A	N/A	N/A		
	CUM TOTAL	48.64	259,074	42.10	(6.54)	224,244	(34,830)	299,563	(75,319)	1.3359	N/A	N/A	N/A		
* JUNE	CURRENT	5.58	29,700	4.21	(1.37)	22,413	(7,287)	32,740	(10,327)	1.4608	N/A	N/A	N/A		
	CUM 1984	27.17	144,700	19.26	(7.91)	102,583	(42,117)	160,251	(57,668)	1.5622	N/A	N/A	N/A		
	CUM TOTAL	54.22	288,774	46.31	(7.91)	246,657	(42,117)	332,302	(85,645)	1.3472	N/A	N/A	N/A		
* JULY	CURRENT	5.69	30,300	4.24	(1.44)	22,607	(7,693)	39,517	(16,910)	1.7480	N/A	N/A	N/A		
	CUM 1984	32.86	175,000	23.50	(9.35)	125,190	(49,810)	199,768	(74,578)	1.5957	N/A	N/A	N/A		
	CUM TOTAL	59.91	319,074	50.56	(9.35)	269,264	(49,810)	371,819	(102,555)	1.3809	N/A	N/A	N/A		
* AUGUST	CURRENT	7.10	37,800	4.52	(2.58)	24,062	(13,738)	51,960	(27,898)	2.1594	N/A	N/A	N/A		
	CUM 1984	39.95	212,800	28.02	(11.93)	149,252	(63,548)	251,728	(102,476)	1.6866	N/A	N/A	N/A		
	CUM TOTAL	67.00	356,874	55.07	(11.93)	293,326	(63,548)	423,779	(130,453)	1.4447	N/A	N/A	N/A		
SEPTEMBER	CURRENT	5.26	28,000												
	CUM 1984	45.21	240,800												
	CUM TOTAL	72.26	384,874												
OCTOBER	CURRENT	5.26	28,000												
	CUM 1984	50.47	268,800												
	CUM TOTAL	77.52	412,874												
* NOVEMBER	CURRENT	6.66	35,500												
	CUM 1984	57.13	304,300												
	CUM TOTAL	84.18	448,374												
DECEMBER	CURRENT	5.26	28,000												
	CUM 1984	62.39	332,300												
	(2) (3)	89.44	476,374												

* CUMULATIVE ADJUSTMENTS:
(1984 CUM & TOTAL CUM)

AUG - NONE TO DATE

* NOTE: (1) 25.58 Cumulative Percent Complete based on 144,074 Total Earned Direct Manhours thru December 1983, calculated against a base of 563,324 Total Estimate Direct Manhours, as shown in January. This Cumulative Percent Complete will adjust per Note (2) below.
(2) 1984 Dynamic Planned and Actual Percent Complete will be calculated using the respective current month MOD 1 Estimate as follows:

15JAN84 MOD 1 = 563,324 MH	15JUL84 MOD 1 = 532,614 MH
19FEB84 MOD 1 = 587,546 MH	*19AUG84 MOD 1 = 532,614 MH
18MAR84 MOD 1 = 587,546 MH	16SEP84 MOD 1 = As Identified
15APR84 MOD 1 = 587,546 MH	14OCT84 MOD 1 = As Identified
20MAY84 MOD 1 = 532,601 MH	18NOV84 MOD 1 = As Identified
17JUN84 MOD 1 = 532,601 MH	16DEC84 MOD 1 = As Identified

RK840125-E

AUGUST 1984

	CONTRACT TO DATE							CURRENT PERIOD				
	1	2	3	4	5	6	7	8	9	10	11	12
	1/1/83 Estimate	Current MOD 1	Schedule (BCWS)	Actual (ACWP)	Earned (BCMP)	Schedule Variance	Budget Variance	Schedule (BCWS)	Actual (ACWP)	Earned (BCMP)	Schedule Variance	Budget Variance
DIRECTS	468,670	532,614	N/A	423,779	293,326	N/A	(130,453)	N/A	51,960	24,062	N/A	(27,898)
DISTRIPS	44,995	29,664	N/A	32,066	20,172	N/A	(11,894)	N/A	4,447	905	N/A	(3,542)
TOTAL	513,665	562,278	N/A	455,845	313,498	N/A	(142,347)	N/A	56,407	24,967	N/A	(31,440)

CONTRACT TO DATE											CURRENT PERIOD			
(AR)			%					Budget	Actual			Budget		
KEY INDICATORS	Estimate Quantity	Estimate Manhours	X Comp	Planned Quantity	Actual Quantity	Budget (BCWP)	Actual (ACWP)	Unit Rate	Unit Rate	Rate Ratio	Current Qty	Unit Rate	Actual (ACWP)	Earned (BCWP)
CU & SS TUBING (3391-3394) (LF)	120,200	1275,770	150.10	N/A	1134,040	1117,897	1157,127	10.879	11.172	1.1333	6,637	11.080	21,368	7,173
SEISMIC SEFTS. (3395) (ft)	5,500	1137,800	154.9%	N/A	2,913	75,720	148,442	126.00	150.95	1.1960	211	126.00	16,118	5,486

JCI-Ent 1011

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CURRENT RATE RATIO	2.618	1.939	1.921	2.654	2.249	2.303	2.899	2.938				
CUMULATIVE RATE RATIO	2.618	1.969	1.894	2.028	3.006	2.128	2.199	2.301				

INTERNAL CORRESPONDENCE

22-028

55 01 010

NIAGARA
MOHAWK

FROM W. Morrison

DISTRICT Nine Mile Point Unit #2

TO Distribution

DATE August 31, 1984 FILE CODE

SUBJECT NMP2 Project Controls Organization

An integrated NMPC/SWEC Project Controls Organization has been approved by Mr. Charlson and myself. The Project Controls Organization has the overall responsibility to implement the Projects Controls Program.

This organization is directed by Mr. Bob Gibson, Project Controls Manager. Mr. Gibson is assisted by Mr. Yatish Goyal, Mr. Wes Boyea, Mr. Carl Dobratz, Mr. Joe Jones and other support staff. The attached organization chart and program description depicts the responsibilities of this support organization.

Any questions you may have regarding Project Controls should be directed to Mr. Gibson or my staff.


W. Morrison
Project Director

WM/RG/bb
Attachment
xc: Project File (1549D)

Distribution:

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(1549D)

NMP2 PROJECT CONTROLS ORGANIZATION

I. Functional Responsibilities

The Project Controls Organization has the overall responsibility to implement the Project Controls Program and in turn it supports the overall project objective of completing Nine Mile Point Unit 2 on schedule and at the lowest possible cost with utmost attention to quality and safety.

The scope of the program consists of:

- Work Identification and Structure
- Resource Estimating
- Schedule Planning and Control
- Information Reporting
- Managerial Action

The Major objectives of the Project Controls Program are as follows:

- Provide a system to optimize productivity during bulk construction and testing phases of the project.
- Provide information organized to support AREA management methods during project construction and SYSTEM management methods during test--with efficient transfer of work content across the construction and testing boundary.
- Provide an information system suited to Milestone Management techniques.
- Ensure QA/QC hold points are well defined in the project to remove any potential for schedule dynamics to affect quality.
- Achieve a work completion profile wherein a maximum of only 5% of construction work remains 13 weeks prior to scheduled turnover of any system for testing.
- Through control of detail and timely progress update, ensure that cost and schedule progress is reported accurately for any or all portions of the project and at all hierarchical levels of the project.

The responsibilities for implementation of the Project Control Program are classified and identified in the following major functional areas:

- A. Planning and Scheduling - Through the utilization of network plans, provides scheduling status information and recommendations for schedule recovery at various levels of detail to the Project.
- B. Budgets & Cost Control - Through the utilization of a responsibility matrix, provides information to management that will allow for early detection of cost problems, a management structure to correct the problem and a reporting mechanism to measure the success of the actions taken.
- C. Cost Assurance - Provides a method to ensure that Project decisions are prudently analyzed, evaluated, and documented to demonstrate prudent management action, and to continuously apprise management of the affect of these decisions.

II. Organization Structure

- A. The NMP2 Project Controls Organization is staffed with full time personnel under the direction of the Project Controls Manager who has the assigned responsibility, authority, and accountability for the functions described herein.
- B. The Project Controls Manager derives authority from and is reportable both administratively and functionally to the NMP2 Project Director.

PROJECT MA
NTROLS
FR
BOB SIMSON (NMPC)

ASSISTANT PROJECT
CONTROLS MANAGER
PATISH COYAL (NMPC)

COST
ASSURANCE
LEAD
N. NIXES (NMPC)

DAVE BRUNDAGE
(NMPC)
RICH WHELAND
(NMPC)

CENTRAL PLAN
LEAD
JOHN LAPOINTE

DAVE HANRETTY
BILL NAPIEN (RCAT)
ED PICCIONI
DALJEET SANDHU
BARB FROMAN
BILL GREINER
RICHARD HORTON
RUTH CLINE (CHOC)
SATTY SATTANWAL (HOC)
BRENT POMERSON
MARTHA BLACKWELL
DEB STEVENSON
CHESTER WISNIEWSKI (CHOC)
CHRIS NOBERLE (NMPC)
ANG REINA (NMPC)
LORI DUROCHER (LKC)
BAND NICHOLS (LTT)
SUE MAYSHALL
KATHY BULLARD
CHERYL BURDICK

PLANNING &
SCHED. LEAD
CARL DOBRATZ

CLERK/TYPIST
KAREN PERRY

CLERK/TYPIST
CHERYL CONGDON

LEAD COST
JES BOYEA

LEAD AREA
PLANNER
BLAINE
WICKERSON

ALL AREAS
DYANE LAUFER (JC)
MOEL LABUE (SPC)
KEN MCKENZIE (LKC)
DAVE MOTHERWELL (2ND SHIFT)

SPECIAL SCHED
& REPORTS
RON SIMONE

SPECIAL SCHED
DIANE
NICARELLI

SEG

CARL
BACHMAY (CHOC)

POCC/NSSS

JOHN
GEORGANAS (CHOC)
MIKE FREEMAN
JIM JOHNSON

START-UP
PUFF ELBING

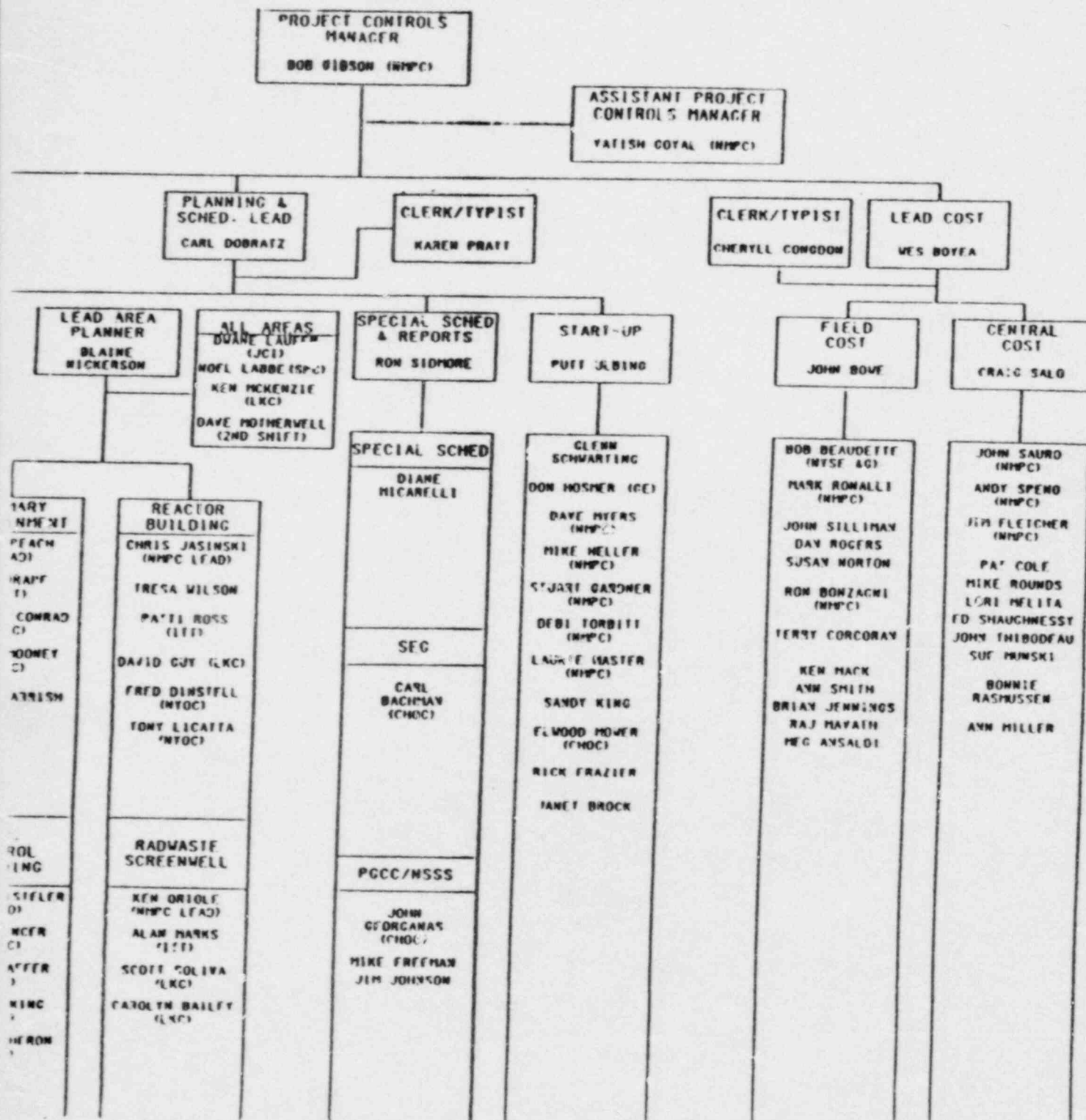
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MIKE HELLER (NMPC)
STUART CARMER (NMPC)
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LAURIE MASTER (NMPC)
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ELWOOD MOWER (CHOC)
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JANET BROCK

FIELD
COST
JOHN BOLT

BOB ZLAUDERT (MYSE & G)
DAVE ROMALLI (NMPC)
JOHN SILLIMAN
DAN ROGERS
SUSAN MORTON
RON BONZACCI (NMPC)
TERRY CONCORDIA
KEN NACK
ANN SMITH
BRIAN JENNINGS
RAJ MAYATH
PEG ANSALDI

CENTRAL
COST
ERIC SALES

JOHN SAURO (NMPC)
ANDY SPENO (NMPC)
JIM FLETCHER (NMPC)
PAT COLE
MIKE ROUNDS
LORI MELITA
ED SHAGHNESSY
JOHN THIBODEAU
SUE HANSKI
BONNIE RASMUSSEN
ANN MILLER



* FUNCTIONS INCLUDE MILESTONE, AREA SYSTEMS, COMMODITY ROLL-UPS & TMLA SCHEDULES.

Bob Gibson
PROJECT CONTROLS MANAGER

Patish Coyal
MANAGER OF PROJECTS

John Bove
PROJECT DIRECTOR

NMP2 PROJECT CONTROLS ORGANIZATION

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT UNIT #2

DATE: AUGUST 28, 1984

INTEROFFICE MEMORANDUM

A 948 11

SUBJECT CONTROL OF WORKFORCE

10 OR
W8 NO 12187

DATE October 1, 1984

FROM JGKappas/LWBrown:djf

TO

JPClemmens
RCO'Donnell
RWHenn
RBaker
CWStuart
LJMartiniano
JECarter
JSPistana
WWalker
SDaelhousen
DGodard

CC

The overall control of the construction workforce on the project has been poor and needs improvement. The most common and offensive items are; early quits, late starts and loafing on the job.

The non-manual Supervisor has prime responsibility for the direct control of the work. Due to the problems that we have been experiencing, the following non-manual Supervisor accountability and progressive discipline program will be adopted.

- I. Construction Supervisor accountability progressive discipline steps to be taken when non-manual Supervisor has not demonstrated control of the workforce.

1st offense

Supervisor will be given a written warning. (Warning to be placed in Supervisor's personnel file)

2nd offense

Supervisor will be suspended for a period of two weeks without pay.

3rd offense

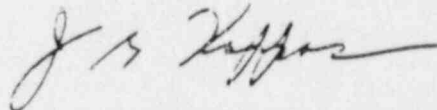
Supervisor is to be terminated for cause.

- II. Disciplinary action will be handled by SWEC discipline department head for force account Supervisors and by Contractors for contractor supervisors.
- III. Area managers will identify problem areas to SWEC Discipline Heads for both force account and contractor personnel.
- IV. SWEC discipline department heads will be responsible for reporting problem areas to contractors for action

The objective of this program is to demonstrate control of the work force and to insure that the non-manual Supervisor is held accountable for this responsibility. We hope that disciplinary action will not be necessary to accomplish our objective.

Attached is a suggested progressive discipline form for your review and use.

If you have any questions or wish to discuss this program, please feel free to contact myself or L.W. Brown.



J.G. Kappas
General Supt. of Construction

INTEROFFICE MEMORANDUM

A 0-00 20

JO OR 12187
WO NO

SUBJECT NOTICE OF DISCIPLINARY ACTION -
LACK OF ENFORCEMENT OF JOB
WORK RULES.

DATE

FROM

TO

CC Central Files
LWBrown

You are hereby _____ Warned

_____ Suspended without pay for a two week period
commencing _____ and ending _____.

for the lack of control of the work force you are responsible for.

NOTE: Any further action beyond suspension will subject you to
termination.

Remarks:

Date