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Subject Nuclear Safety

Hearing date Sept. 18, 1986

Referred to Lando W. Zech, Jr., et al
(Commissioners)

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
September 23, 1986

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MEMORANDUM FOR: Sharon Connelly, Director, OIA
Ben Hayes, Director, OI
Ray Brady, Director, SEC

FROM: Fred Combs
Office of Congressional Affairs

SUBJECT: TRANSCRIPT ON THE NUCLEAR FUEL SERVICES FACILITY AT ERWIN, TENNESSEE

Attached for your information is a transcript of the September 18, 1986 before the Subcommittee on Energy Conservation and Power, House Committee on Energy and Commerce, Representative Markey, Chairman.

Attachment:
As stated

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Fred

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* C O N T E N T S *
* * * * * * * * * * * *

STATEMENTS OF:

STATEMENT OF LANDO W. ZECH, JR., CHAIRMAN, UNITED STATES NUCLEAR REGULATORY COMMISSION; ACCOMPANIED BY THOMAS M. ROBERTS, COMMISSIONER, UNITED STATES NUCLEAR REGULATORY COMMISSION; JAMES K. ASSELSTINE, COMMISSIONER, UNITED STATES NUCLEAR REGULATORY COMMISSION; FREDERICK M. BERNTHAL, COMMISSIONER, UNITED STATES NUCLEAR REGULATORY COMMISSION; KENNETH M. CARR, COMMISSIONER, UNITED STATES NUCLEAR REGULATORY COMMISSION; WILLIAM CROW AND DOUG COLLINS, NRC REGION II, CHIEF, EMERGENCY PREPAREDNESS AND RADIOLOGICAL PROTECTION BRANCH
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1 RPTS STEIN
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3
4 HEARING ON THE OPERATING RECORD
5 OF THE NUCLEAR FUEL SERVICES FACILITY
6 AT ERWIN, TENNESSEE
7
8 Thursday, September 18, 1986
9
10 House of Representatives,
11 Committee on Energy and Commerce,
12 Subcommittee on Energy Conservation
13 and Power,
14 Washington, D.C.
15
16
17 The committee met, pursuant to call, at 9:45 a.m., in Ro
18 2322, Rayburn House Office Building, Hon. Edward J. Markey
19 [chairman of the subcommittee] presiding.
20 Present: Representatives Markey and Moorhead.
21 Staff present: Lawrance R. Sidman, Chief Counsel and
22 Staff Director and John Abbotts, Professional Staff Member.

23 Mr. MARKEY. The committee will come to order.

24 In January 1986, in response to allegations by the Oil,
25 Chemical and Atomic Workers International Union, the
26 subcommittee initiated an investigation into the Nuclear
27 Fuel Services plant in Erwin, Tennessee. This plant, which
28 has operated since 1957, is the sole supplier of furnished
29 uranium fuel for the Navy's submarines.

30 Internal NRC documents and the public record show that N
31 Erwin is the most dangerous uranium fuel production plant
32 that the NRC licenses. It has the worst record of fines of
33 any comparable plant.

34 NFS Erwin endangers workers through contamination and
35 chronic exposure. The NRC's own staff has singled out the
36 plant for its unique dangers for accidental exposure to
37 nearby residents. In addition, radioactive waste buried on
38 he plant site financially endangers state and Federal
39 taxpayers.

40 The NFS plant is a toxic nightmare, oozing radioactive
41 contamination: into work areas; into lunch rooms and other
42 non-working areas, and onto the soil outside work buildings.
43 The plant has contaminated groundwater and off-site
44 railroad land. Even parts of vending machines had to be
45 disposed as radioactive waste.

46 Events at NFS Erwin, and the accidental death of a worker
47 at the Kerr-McGee plant in Oklahoma, make it clear that it

48 is long past time to give uranium ''fuel cycle'' facilities
49 the same regulatory and public scrutiny that has been given
50 to nuclear reactors. But the NRC's attention to NFS has
51 been sadly lacking.

52 The Atomic Workers union has complained that the NRC
53 response to its allegations has been unsatisfactory. This
54 complaint is entirely credible, because on other problem
55 areas raised by its own staff, the NRC has been more
56 interested in protecting NFS than in regulating it.

57 The company considers information on its decommissionin
58 fund and on estimated costs to be proprietary. The NRC has
59 supported this preposterous claim, which means that the
60 citizens and elected officials of Tennessee do not know that
61 the NFS fund is woefully inadequate to do the job.

62 The history of the Nuclear Fuel Services reprocessing
63 plant in New York State should lend special concern to this
64 issue. There in New York, NFS walked out the door, leaving
65 others to pay the radioactive mortgage.

66 The company abandoned the plant and 560,000 gallons of
67 highly radioactive waste, leaving a ''perpetual care'' fund
68 that was entirely too small, and leaving New York State and
69 Federal Governments to deal with a cleanup costing $400
70 million or more.

71 In July 1982, the NRC staff reported that NFS Erwin pose
72 special dangers for accidental exposure of the surrounding

population, and recommended additional emergency planning measures, including a warning system and instruction brochures for nearby residents.

Despite the objections of the NRC regional office in Atlanta, the Commission ignored the proposal and said it would wait for an industry-wide rulemaking. The rulemaking has dragged on, and a proposed rule is only now before the Commissioners. In the meantime, singular conditions at NFS that produced the staff's concern have remained.

In addition, it was both surprising and disturbing that the NRC was not on top of the union's most serious allegation--that NFS workers suffered kidney damage, a symptom of uranium's chemical toxicity. The NRC was not aware of this allegation until the subcommittee informed it, and the agency did not have the expertise within its staff to confirm or deny the allegation. NRC was forced to turn to another Federal agency, the National Institute for Occupational Safety and Health, for medical studies, meaning that NFS workers have had to wait months for a study to even start.

Since uranium, the central element of reactor fuel, is pervasive throughout the nuclear fuel cycle, this union allegation represents a challenge to the very basis of the NRC's human exposure regulations.

At a meeting in January 1986 after the Kerr-McGee

98 accident, the Commissioners wondered out loud whether the
99 agency had the expertise to inspect for chemical hazards.
100 The NRC's lack of staff expertise on the toxic chemical
101 effects of uranium at NFS is an all too similar and major
102 deficiency.

103 I recognize the strategic significance of the NFS plant
104 it is the sole supplier of uranium fuel for the Navy's
105 nuclear reactors. But national security cannot be used as a
106 shibboleth to evade obligations to protect workers, nearby
107 citizens, and taxpayers.

108 I want this plant to operate, but to clean up and opera
109 safely. The NRC needs to do a much better job of ensuring
110 that the health of workers is not damaged, that emergency
111 planning requirements are sufficient, that plans for cleanup
112 and decommissioning are adequate and fully funded, and that
113 Tennessee and Federal taxpayers are not left holding the bag
114 for future waste disposal problems.

115 In closing, I want to note that Nuclear Fuel Services
116 declined an invitation to testify at this hearing, claiming
117 scheduling conflicts for support staff and a key witness.
118 While I excused the company from testifying, I want to make
119 it abundantly clear that my primary purpose in inviting NFS
120 to testify was to allow the company the opportunity to
121 respond quickly and in person to the allegations which the
122 subcommittee will be reviewing.

123 To the extent that NFS forfeited the opportunity, the
124 responsibility for doing so rests with the company in
125 written form. I will provide NFS the opportunity to express
126 its views through written comments for the record, but I
127 regret that the subcommittee will not have the benefit of
128 the company's oral testimony at this hearing.
129 That concludes the Chair's opening statement. Now I wi
130 recognize the Ranking Minority Member, the gentleman from
131 California, Mr. Moorhead.
132 Mr. MOORHEAD. Thank you, Mr. Chairman.
133 I want to welcome the witnesses appearing before us tod
134 I want to extend a special welcome to Chairman Zech and
135 commend him for his initial efforts at the helm of the
136 Nuclear Regulatory Commission. I could not agree more with
137 the chairman's testimony at our July 16 hearing on the
138 importance of promoting excellence in the operation and
139 management of nuclear power plants. Obviously, the Nuclear
140 Regulatory Commission must play an important role in
141 fulfilling this objective.
142 After reviewing today's material, I believe the record
143 demonstrates that the Nuclear Regulatory Commission has
144 aggressively pursued its mandate to protect the public
145 health and safety in the case of the Erwin facility.
146 Almost all of the allegations that are the subject to
147 today's hearing relate to problems which the NRC was already

148 aware of and working with the Nuclear Fuel Services to
149 remedy.
150 When the NRC inspections revealed problems at the Erwin
151 plant over three years ago, the NRC stepped up its
152 inspections, arranged for an independent audit, and helped
153 to fashion a performance improvement program.
154 As a result, NFS has brought in new management, new sta
155 and is making several building and site improvements
156 designed to further reduce the potential for contamination
157 outside of the fabrication buildings. These improvements
158 have begun to bear fruit.
159 This does not mean, however, that the NRC should relax i
160 vigilance. This plant serves a vital national security
161 interest. For this reason, I am pleased with the aggressive
162 fashion in which the NRC has investigated the allegations it
163 has received from the plant workers.
164 I am also encouraged by the NRC's efforts to identify th
165 underlying causes of problems at NFS so as to avoid more
166 significant problems.
167 This is always important--but it is particularly importa
168 in a plant as old as the Erwin facility.
169 This plant began operation in 1957--long before we
170 promulgated our current health and safety regulations.
171 Obviously, with a plant this old, the cooperation and active
172 involvement of management, labor and the NRC is an essential

173 elements to improving health and safety practices.

174 I would hope all the parties would redouble their effor

175 in this regard.

176 I wanted to say in conclusion, I think the NRC has five

177 very, very brilliant, capable people serving on the board,

178 on the Commission. Each and every one of you has great

179 pluses. I know oftentimes at these hearings that we have,

180 so often it seems like we are chewing on each other more

181 than we should because this committee is very, very

182 interested in the safety and health of the American people

183 and the way that nuclear energy works and operates, and I

184 speak for our chairman, Mr. Markey; he is very concerned, I

185 believe, and I can assure you that I am.

186 I think it is important that where we feel problems that

187 we work very closely together not just to make political

188 mileage, but to work to try to make these facilities safer

189 and to try to work out the problems that are there so that

190 the industry remains vital and viable.

191 You know, it might be that sometime without a lot of

192 bright lights and everything else we could work together all

193 day long and bring up all the problems that are there and

194 get together as a team, and we can get a better

195 understanding between the complaints that come from this

196 committee and the problems that you folks see and what you

197 think you are doing to solve it.

198 If we are going to make this industry work, and that is
199 very unpopular right now with Chernobyl and everything else,
200 but it is a necessary Industry for the future, I think that
201 it could be very, very helpful if you would listen to Mr.
202 Markey and Mr. Markey's staff and to me, and we would listen
203 to you and try to work some of these things out so that at
204 least--it is your job, it is your responsibility, but it is
205 our oversight responsibility and I think it is necessary
206 that we have more respect and understanding for each other
207 and we aren't competitors in any way, that we try to--if
208 there is a problem, we solve it, so that there is more
209 safety in the nuclear plants and that we meet legitimate
210 complaints and understandings and at the same time you do a
211 good job.
212 Thank you.
213 Mr. MARKEY. I certainly agree with the gentleman from
214 California.
215 The gentleman's time has expired. Before we take
216 testimony from the NRC, I would like to cover a few
217 preliminary matters.
218 First, last night, the NRC agreed to the subcommittee's
219 request for public release of a document entitled, ''NFS
220 Status Briefing Material, Region II's Perception.''
221 This document was prepared in the fall of 1985 and I
222 understand that it was used to brief Commissioner Zech in

223 January of 1986. I believe that disclosure of this document
224 with proprietary information deleted by the NRC will serve
225 the public interest and today we are releasing this document
226 and, without objection, asking that it in a subcommittee
227 staff memo be inserted into the hearing committee record.
228 Without objection, so ordered.
229 [The information to be furnished follows:]
230
231 ********** COMMITTEE INSERT *********

232 Mr. MARKEY. For the benefit of the audience, I want to
233 indicate the location of this plant and point out some of
234 the important features on the handouts available and the
235 display at the front of the room.
236 The City of Erwin is located in the eastern part of
237 Tennessee in the Appalachian Mountains and near the North
238 Carolina border. The Fuel Services plant is to the
239 southwest of the city, about three-quarters of a mile away
240 from the city limits, although the closest residence is only
241 250 yards away from the facility.
242 The second figure shows the plant in some detail. The
243 uranium fuel facility is in the middle of the plant site and
244 inactive plutonium facilities in that section.
245 There may be discussion about the inactive retention po
246 at the East ends of the plant. The waste burial pits// are
247 to the east of them and contaminated railroad land is to the
248 northwest of the plant.
249 In addition, I would like to add a cautionary note on th
250 material to be discussed. The U.S. Navy has expressed its
251 concern that detailed information on the process of
252 producing fuel for naval reactors is classified. I have
253 received a personal briefing from naval reactors and have
254 reminded them that in preparing for this hearing,
255 subcommittee staff has requested no classified documents and
256 has seen no classified material.

257 In addition, the Navy has reviewed in advance the NRC's
258 written responses to the subcommittee. Union members have
259 made clear that they are very patriotic and very aware of
260 the need to protect sensitive material.
261 It goes without saying that the NRC is also cognizant of
262 classified information. Because of the Navy's concern, I do
263 want to remind witnesses that information that leaks,
264 spills, accidents and contamination which have occurred is
265 not classified while detailed information on the Navy's
266 fuel, on equipment and on the manufacturing process is
267 classified, and keep this in mind while testifying.
268 It would be very, very helpful if all witnesses could kee
269 those distinctions in mind.
270 Before the NRC begins testifying, I want to take this
271 opportunity to welcome Commissioner Carr to his first
272 appearance before the subcommittee. Admiral Carr has had a
273 long and distinguished military career. He fought in World
274 War II and was a member of the first crew of the Nautilus,
275 the first nuclear submarine. He served as commanding
276 officer on two nuclear submarines.
277 The subcommittee looks forward to working with
278 Commissioner Carr and we thank you very much for all of the
279 work that you have done in the past and the contributions
280 you have made.
281 With that, we suspend the opening statements by members o

282 the committee and we turn to our panel.

283 Welcome, Commissioner Zech. We would appreciate once

284 again if you could limit your opening statement as best as

285 possible so we cold begin questioning.

286 The Chair now recognizes the Chairman of the Nuclear

287 Regulatory Commission for an opening statement.

288

289 STATEMENT OF LANDO W. ZECH, JR., CHAIRMAN, UNITED STATES
290 NUCLEAR REGULATORY COMMISSION; ACCOMPANIED BY THOMAS M.
291 ROBERTS, COMMISSIONER, UNITED STATES NUCLEAR REGULATORY
292 COMMISSION; JAMES K. ASSELSTINE, COMMISSIONER, UNITED
293 STATES NUCLEAR REGULATORY COMMISSION; FREDERICK M.
294 BERNTHAL, COMMISSIONER, UNITED STATES NUCLEAR REGULATORY
295 COMMISSION; KENNETH M. CARR, COMMISSIONER, UNITED
296 STATES NUCLEAR REGULATORY COMMISSION; WILLIAM CROW, Chief, Uranium Fuel Licensing Branch, Office of Nuclear Material Safety and Safeguards AND
297 DOUG COLLINS, NRC REGION II, CHIEF, EMERGENCY PREPAREDNESS
298 AND RADIOLOGICAL PROTECTION BRANCH
299
300 STATEMENT OF LANDO W. ZECH, JR.
301
302 Mr. ZECH. Thank you, Mr. Chairman.
303 Before I give my opening statement, and it is a brief
304 statement, I feel I should make several comments concerning
305 the statements you have made and the statements Mr. Moorhead
306 has made.
307 First of all, I would like to say that I certainly agree
308 with Mr. Moorhead and would accept his invitation and yours,
309 Mr. Chairman, to do whatever we can to work closely with
310 your committee. Perhaps we could have a session together.
311 I think that will be very fruitful. I am a personal
312 believer in working together on issues with all members of

313 our country that are interested in nuclear power.

314 Your committee has a large responsibility which I respe

315 very much, and certainly I would be delighted, and I am sure

316 my colleagues would, too, to work closely with you in any

317 way that you or Mr. Moorhead would think appropriate.

318 I also would like to agree with Mr. Moorhead's assessme

319 I think NRC has acted responsibly in a situation at Erwin.

320 I agree that we should not relax our vigilance and should

321 continue doing everything we can to improve the situation at

322 NFS Erwin.

323 Mr. Chairman, I do not agree with several points you ma

324 that the danger of accidental exposure to off-site residents

325 is greater than at any fuel site in the country. I also

326 think that the statement in your staff report, which I just

327 saw this morning, which said that it took your request to

328 notify us of possible health problems at NFS Erwin in order

329 for us to do anything; I think that is entirely incorrect.

330 I think the reference in the statement to NRC exposure

331 limits and the implication that our limits were inadequate,

332 I think that is not a proper characterization. I think our

333 recognition that we should involve the National Institute of

334 Occupational Health and Safety is a very appropriate and

335 responsible action on our part. It simply is a recognition

336 that if that organization can be helpful to us we should

337 call upon them and that is exactly what we have done.

338 ~~The NRC's~~ I think the NRC's record of monitoring and oversight of NFS
339 Erwin would indicate a responsible action and a concern over
340 a number of years about that facility. I think we have
341 taken appropriate actions. I think the facility itself, the
342 management, has at least recently in enacting their
343 performance improvement program shown a responsible action.
344 I think we are perhaps just starting to see results, but
345 frankly I am not completely satisfied. I don't think my
346 fellow Commissioners are either, but I think the responsible
347 actions that the facility is taking recently and the
348 specific things they have done to increase safety,
349 especially of their workers at that facility, is
350 encouraging, ~~and whereas wrong,~~ we should feel--we should not
351 rest on our laurels. I think that the facility is being
352 responsibly managed.
353 I think that there is no question but the workers and th
354 management need also to work closer together as you and Mr.
355 Moorhead have suggested, and I think a cooperative and
356 constructive effort on their part would be most appropriate
357 and show that--and in my mind anyway be the correct course of
358 action.
359 In other words, working together at that site as well as
360 working together on this committee is certainly something
361 that I submit is a constructive way to improve.
362 Let me just make one final statement here, Mr. Chairman.

363 Your allusion to this Commission as not being aggressive, I
364 think, is entirely incorrect. I think we have been
365 aggressive.
366 I think you are working here at least in my impression i
367 the past two years, you are working with some dedicated
368 professionals who do care about their fellow citizens.
369 You have a staff that has tremendous competence, working
370 very hard with a tremendous amount of integrity and honesty
371 and openness and their sole purpose is safety and public
372 health and safety of their fellow citizens. I think that is
373 commendable and I am proud to serve with these
374 professionals.
375 Mr. Chairman, I appreciate the opportunity to testify
376 before this subcommittee concerning NRC regulation of the
377 Nuclear Fuel Service facility in Erwin, Tennessee.
378 On July 16, 1986, I appeared before you and described the
379 Commission's views on the importance of excellence in the
380 operation and management of nuclear power plants in his
381 country.
382 At that time, I stated that a clear dedication to safety
383 must come from within the top officials of each nuclear
384 utility and that discipline, technical competence, constant
385 vigilance and management involvement are mandatory if we are
386 to succeed in safely providing the benefits of nuclear
387 energy to the American people.

388 I also described the roles of the NRC Regional
389 Administrators, the key NRC headquarters offices, and the
390 Commission itself to closely monitor and assess each plant's
391 operational safety performance and to initiate necessary
392 actions to demand correction of adverse trends.
393 In my view, Mr. Chairman, the safe operation of nuclear
394 fuel facilities demands the same degree of excellence in
395 operations and management as is expected at nuclear power
396 plants. The NFS facility is especially important to our
397 country since it represents a key element in the production
398 of nuclear fuel for the reactors in our Navy's nuclear
399 powered ships. I am informed that NFS Erwin has a
400 longstanding reputation of putting out an excellent product.
401 NFS began processing nuclear materials in 1957. Various
402 isotopes and enrichments of uranium, as well as thorium and
403 plutonium, have been handled in its facilities and
404 equipment. Some of its facilities have been used for many
405 years, and some are no longer in use as processes and
406 practices have changed.
407 The NRC regulatory program at the Erwin facility has bee
408 extensive, with priority attention given to areas of
409 performance requiring improvement and follow-up to ensure
410 that improvements are made.
411 As a comparison, the NRC regional inspection effort at
412 Erwin over the past several years has been almost equal to

that for a nuclear power station with a single reactor, approximately four staff years per year, including an on-sita full-time resident inspector.

This level of NRC inspection, which is greater than at other nuclear fuel facility, has been necessary due to the complex operations involving highly enriched uranium, the labor-intensive nature of the production lines, and the multiple performance areas where improvements have been necessary.

Over the past three years, NRC inspections have identif significant deficiencies in NFS operations in the areas of nuclear criticality control, nuclear materials safeguards, and radiological controls. Problems in these areas have resulted in escalated NRC enforcement actions, including four civil penalties and an order modifying the license. The details are included in our response to your questions.

In conjunction with the NRC's most recent escalated enforcement action in May 1985, NFS management committed to an independent review of their nuclear health and safety program and implementation of their own performance improvement program to address NRC concerns as well as weaknesses identified by the independent review. This review was conducted by the Bechtel Corporation in June 1985.

Bechtel identified weaknesses in NFS management involvement in the radiological controls program, deficiencies in staffing levels and qualifications of the radiation protection staff, and the need for increased supervision within the radiation protection organization. In mid-1985, the NFS performance improvement plan was modified to address the findings of the independent review.

As part of its inspection and enforcement program, the has been examining a number of alleged violations of requirements reported to NRC by plant workers, principally during a worker strike in 1985 while the plant was being operated by supervisory employees.

Of the total 178 allegations, 164 have been investigated and of these, 38 have been partially or completely substantiated.

These matters have resulted in NRC issuing 13 severity level IV or V violations of NRC requirements. The violations found by NRC through followup of these worker allegations do not individually pose a serious threat to public health and safety, but they do deserve--and NRC requires--management's prompt attention to such problems and their underlying causes so that more significant problems are prevented.

Current operations at Erwin are considered to be satisfactory in terms of compliance with NRC requirements

and protection of public safety. During the past year, the results of NRC inspections and management reviews have indicated that there has been some improvement in safety performance at NFS.

Based upon their initial actions under the performance improvement program, it appears that NFS management is willing to commit the necessary resources and to improve performance.

Nevertheless, much remains to be accomplished in upgradi the quality of operations and radiological controls as well as general work station cleanliness at this important facility.

In coming months, we will be observing the extent to whi NFS management is successful in implementing an internal program which both encourages the reporting of legitimate employee safety concerns and demonstrates management's resolve to promptly address safety issues.

The Commission acknowledges management's commitment in their performance improvement plan but reserves judgment on effectiveness of the NFS program pending additional NRC staff monitoring and evaluation.

The responsibility for safe nuclear operations at a nuclear fuels facility such as NFS is an important task for the licensee. The Nuclear Regulatory Commission's regulatory programs are intended to ensure that the licensee

488 meets this responsibility.

489 During a recent visit to the NFS facility, I toured the
490 plant and met with corporate, plant and local union
491 officials. In my judgment, NFS management has established a
492 reasonable plan for addressing their problems. I told the
493 NFS management that I was disappointed with the cleanliness
494 of the facility and I recommended management attention in
495 order to prevent contamination and radiation problems.

496 Also, I suggested to management and to a union official
497 that they try to work together in a spirit of cooperation
498 that would reflect their excellent product.

499 Let me close my testimony by assuring you and the member
500 of this subcommittee that the Commission is fully committed
501 to continued, strong safety oversight at the Erwin facility.
502 Although we believe NFS Erwin management is dedicated to
503 achieving improved performance, we want to see results.

504 Mr. Chairman, this completes my testimony. I would be
505 happy to address the subcommittee's questions.

506 Mr. MARKEY. Thank you, Mr. Chairman.

507 Any other members of the Commission seeking to be
508 recognized for purposes of giving an opening statement?

STATEMENT OF JAMES K. ASSELSTINE

Mr. ASSELSTINE. May I make a couple of comments since was out of town when the testimony was finalized?

I would say at the outset that I think that the problem with this plant and the problems that we have seen in a number of facilities in the materials area indicate a need for some greater attention and effort on our part to materials licensees.

We on the Commission spend most of our time focusing on the reactor side and I think the lessons of some of the experiences at some of these facilities ought to be telling us that we need more effort on the materials licensing side as well, whether it is the ~~with~~ enforcement action~~s~~ that we have had against companies like Radiation Technologies, the accident at the Sequoyah fuels plant, the problems with NFS Erwin, difficulties with medical misadministrations ~~and~~ or problems with industrial radiography overexposures, those experiences indicate that we should be doing more in the materials area.

In recent months, we have set up a blue ribbon panel to look at ~~the hole in~~ NRC regulation of materials licensees, what can be done to improve the performance of these licensees and our regulatory performance. I think we need to take a fresh look at our requirements and how effective we have been in ensuring a strong NRC presence in inspection

534 and enforcement in materials licensing.

535 In terms of NFS Erwin specifically, I think I would be

536 little less positive than the Commission~~er~~'s statement in

537 terms of whether the operations there are satisfactory. ~~and~~ I

538 also have concerns about the staff's handling of the various

539 allegations that we have seen from the company employees.

540 A couple of examples: One of the allegations that we

541 received had to do with an allegation that there was an

542 individual who was responsible for ensuring production at

543 the plant and that foremen were so afraid of this individual

544 that they would lie in order to avoid problems with that

545 individual. The staff's response was to say, ''Well, there

546 is not any regulatory requirements in this area and,

547 therefore, there is no regulatory concern.''

548 I am a little troubled by that. If you have a situation

549 where production is so important and where you have the

550 person in charge of that having such a strong role, a

551 logical question is, "Is there a safety impact from that kind

552 of influence?"

553 Another allegation had to do with concerns that had been

554 reported by these individuals to management, and management

555 hadn't done anything about them. The staff response was to

556 say there weren't any regulatory concerns and to refer the

557 concerns right back to the NFS management.

558 I am not sure that solves the problems either and I

559 understand where the union would not be satisfied with that
560 response on our part.
561 Another problem has to do with the contamination in the
562 lunch room and again the response seems to be that the
563 contamination levels are below our limits for the plant,
564 which are set at the highest level and, therefore, although
565 they violate the company limits, there aren't real problems
566 there.
567 I am not satisfied with that response either. ~~and~~ The
568 failure of radiation monitoring equipment, the answer is it
569 is not of concern either because the process wasn't in
570 operation or the particular piece of equipment wasn't
571 specifically required.
572 I think the answers to these allegations misses the
573 broader lesson from this experience that when you put these
574 things together the practices and the quality of operation
575 ~~there~~ aren't what we ought to be insisting upon.
576 If our regulations or requirements aren't high enough to
577 ensure a higher level of operation, maybe we ought to take a
578 hard look at what our requirements are and how we have been
579 doing with ensuring compliance. ~~operation~~.
580 I agree with the chairman that our sense from the Navy i
581 that the product there is pretty good. But the difficulty is
582 when I look at the overall history and the allegations, ~~is~~
583 ~~that~~ it seems to be a pretty sloppy operation, not up to the

standards that we ought to be insisting upon.

The enforcement history is not good when you compare tl facility with others in this country and abroad, I think that there is a clear difference in terms of the quality of operations. ~~and~~ We ought to be working to ensure substantial improvement here.

I have been to at least one other fuel facility in this country and the comparison is like night and day in terms of cleanliness and attention to maintaining the equipment and facilities.

I have been to ~~at least overseas~~ another facility recently in Japan and again see substantial differences in terms of attention to radiological control and cleanliness in the facility.

I think Chairman Zech visited the same facility and cou give you the same kind of reaction. We need to ensure that the quality of operations and the sloppiness at this place gets cleaned up. ~~and~~ I would characterize it more as that than anything else.

I am encouraged that the company has an improvement program, but I think we have to insist upon real improvement and get tough with these guys and get the kinds of performance we need.

I think the Navy ought to get tough with them. They are the sole supplier of this product and if you have a substantial problem at this facility, there are potential

609 national security ~~impacts~~ implications from that. That gives the Navy a
610 strong stake in ensuring that the quality of operations
611 there improves.
612 Those are my comments, Mr. Chairman.
613 Mr. MARKEY. Any other members?
614 Commissioner Bernthal?

615

616 STATEMENT OF FREDERICK M. BERNTHAL

617

618 Mr. BERNTHAL. I will take just a minute.

619 I agree with many of the comments that both the Chairma

620 and Commissioner Asselstine have made. I wanted to

621 emphasize one point.

622 This is the second or third time around the track with

623 this facility for some of us and Commissioner Asselstine

624 hasn't mentioned it, but we went through a similar go-around

625 with the NFS facility when Commissioner Asselstine was the

626 lead staff person on the Senate Committee of Oversight and

627 Environment and Public Works and I was a staff member in the

628 Senate.

629 My experience over the last eight years--and I am going

630 comment on the institutional aspect of how you are running

631 this ship there, is that it is a strange way to run and to

632 regulate, if I may say, the sole source for a strategic

633 material such as Navy nuclear fuel.

634 Where the Navy leaves it to the NRC, by and large, the

635 NRC--and I noted this particularly before I became a

636 Commissioner, is put in the position of having to say,

637 ''Well, we would like things to be better, but we understand

638 that this is a terribly important facility,'' and things kind

639 of go on the way they always had.

640 You have an adversarial union-management relationship,
641 the earmarks of the old-fashioned way and it isn't the good,
642 old way either, I might say.
643 I don't understand why that kind of adversarial managem
644 labor relationship is considered appropriate for the sole
645 source of a strategic material such as Navy nuclear fuel.
646 So very broadly speaking over the last eight years or sc
647 that Commissioner Asselstine and I have observed this
648 facility, there are a number of things that give rise to
649 some concerns and that none of us should be terribly happy
650 about.
651 Thank you, Mr. Chairman.
652 Mr. MARKEY. Any other members?
653 So we have two former Senate staffers and two former
654 admirals. I don't know how you got into this job,
655 Commissioner Roberts.
656 Let me just start by asking, what is your view with rega
657 to the role which the Navy should be playing in regulation
658 here? Do you think that the Navy should have some
659 regulatory responsibility in this area?
660 Mr. ZECH. I don't think so, Mr. Chairman. I think we
661 have the regulatory responsibility. I think that is--unless
662 the rules are changed, I see no reason why we should not be
663 able to carry out our responsibilities in this regard. I
664 know the Navy is interested in the product, that the Navy

665 cares about the facility. I don't think we need another
666 regulatory group. I see no reason that we can't carry out
667 our responsibilities at NFS Erwin.

668 I think we have done that. I think we have recognized
669 that there is room for improvement down there, acknowledged
670 that, and I think that there is no reason that we should try
671 to change the current setup. I think we can handle it and I
672 think we should.

673 Mr. MARKEY. Are there any members of the Commission th
674 believe there should be a jurisdictional change?

675 Mr. ASSELSTINE. I am not sure that there should be a
676 jurisdictional change and maybe the question of NRC or Navy
677 regulation isn't the right one. I would like to see more
678 Navy involvement. I think they have got a strong stake in
679 the way that place is operated. They have a strong stake
680 not only in the quality of the product it produces, but in
681 the manner they produce it.

682 I have to say that in previous years when there ~~they~~ have have ~~had~~
683 difficulties with this facility on material accounting
684 questions, the attitude of the Navy has been, ''Gee,
685 fellows, you can't shut that facility down. We have to
686 ensure continued operation of that facility because we
687 depend so heavily on this product. It is our sole source of
688 supply.''

689 I suspect if we had significant safety problems or a

690 significant operating event at this plant, we would face the
691 same kind of difficulty with the Navy.
692 The Navy would be saying, ''We have to have this product
693 and there is a strategic impact if you disrupt the
694 production process.''
695 To me, that says that the Navy ought to be fairly strong
696 involved in telling this company not only that they are
697 satisfied with the product they are producing, but also that
698 they want to see an improvement in the manner they produce
699 it and I think that kind of assistance wouldn't displace the
700 NRC regulation necessarily, but it could help us bring about
701 the kinds of changes that we would like to see in the place.
702 I think that Chairman Zech has talked with Admiral McKee
703 at the Navy about the facility and I think that kind of
704 interaction is positive, moves us in the right direction.
705 I would like to see a stronger Navy role insisting on good
706 operations and I hope we would see real improvement in the way they
707 do their job.
708 Mr. MARKEY. I don't think Admiral Rickover would allow
709 one of his submarines to be run the way this plan is run,
710 which produces the fuel to drive the submarine fleet. I
711 think we have two standards: One that is very high and very
712 conscious of health and safety concerns that the Navy
713 implements for its own fleet of officers and enlisted
714 personnel, but yet another standard that applies to the

715 civilians who are working just as diligently on national
716 security objectives, but without the same painstaking care
717 taken to ensure that the workers, the civilian workers in
718 this plant in Tennessee, are given the same kind of care and
719 concern.

720 It is that double standard, I think, which bothers this
721 subcommittee, and to the extent that the Navy turns a blind
722 eye on these concerns as long as the fuel is delivered on
723 time, meeting the specifications, I think is an abdication
724 of responsibility.

725 Although there is no direct jurisdiction, I think that t
726 Navy has a moral responsibility to exercise whatever clout
727 it has to ensure that while the national security objectives
728 are being met that simultaneously health and safety and
729 environmental concerns should also be met as it does in its
730 military submarine program, and I don't know why they can
731 take such a high profile interest on the one hand, but when
732 it comes to these civilians that they just basically say
733 that ''It is not my job; it is the NRC's.''

734 So I have very serious problems with the Navy's attitude
735 on this subject and my hope is that they will understand
736 that unless they begin to play a larger role as well, even
737 on an informal advisory basis, but in a very aggressive and
738 insistent basis, then many of these problems, I feel, are
739 going to fester on indefinitely.

740 They are the contractor. These materials are being
741 manufacturer for the Navy. To the extent that the Navy
742 wants certain things done, they will be done if they so
743 request.
744 If they absent themselves from any of those discussions
745 with regard to the health, safety and environmental working
746 conditions there, then unfortunately it reduces the
747 likelihood that these conditions will be improved.
748 That is a fact of life, the way the world works.
749 Hopefully the Navy will understand that this black eye, this
750 continuing problem will be with them as long as they resist
751 the opportunity for them to go in and help as well to clean
752 up the mess.
753 Mr. ZECH. May I respond?
754 Mr. MARKEY. I would be glad to listen to you.
755 Mr. ZECH. I have reviewed the history of the problems c
756 this plant, Mr. Chairman, over many years. It is an old
757 plant, first constructed in 1957, as a laboratory and since
758 has changed its mission rather significantly several
759 different times.
760 I have noted also the history of problems, but in my
761 recent visit to NFS Erwin, as I indicated, I was
762 disappointed. I know the Navy standards and they are high
763 and they are good and the results are good. I was
764 disappointed in that plant as you alluded and I so stated in

765 my statement.

766 I noted improvement efforts and also told the officials
767 wanted to see results. I talked to the union
768 representative, who I thought presented himself very
769 candidly and very constructively, and so when I came back to
770 Washington, I called Admiral McKee, ~~and~~ I told him ~~that~~
771 essentially what you had said, that although the Navy
772 received the product and it was a good product, I Knew it
773 was, that--and that we were responsible for regulatory
774 measures and monitoring, that I thought that he could help
775 by indicating to ~~management.~~ NFS management, ~~that~~ perhaps
776 supporting my views, that the plant had plenty of room for
777 improvement. It would be helpful to me as a regulator if he
778 as the product receiver would agree with that and would
779 approach management. And he did so.

780 I just received a day or so ago a letter from Mr. Charle
781 Taylor, the President of NFS Erwin indicating to me that he
782 agreed with my rather critical assessment of his performance
783 and he intended to do something about it.

784 So I do think that Admiral McKee and the Navy have taken
785 action. I hope that that will result in improvements in the
786 future. I will monitor it closely, Mr. Chairman.

787 I agree that the Navy should have a greater interest an
788 I have tried to do what I could and I think Admiral McKee
789 has responded in a very acceptable manner.

It is something we will have to watch and ~~I think~~--as I said ~~say~~, I don't think any changes are necessary right now, but I am encouraged by the response I got not only from Admiral McKee, but from Mr. Taylor.

We will have to watch and see what happens.

Mr. ASSELSTINE. On the contractor question, I think it fair to point out that there are a couple of other defense contractors involved in the Navy fuel production program, ~~and~~ while they may be different in terms of the process that they do, they may not have the chemistry difficulties and challenges that exist at NFS Erwin. Generally we haven't had a problem with those facilities.

The BWX facility at Lynchburg and the NC facility in Connecticut, those tend to be first-class operations. ~~and~~ I think the message that needs to be sent is that is the same thing we expect at this facility, particularly given its important defense role.

I think the chairman is to be commended for what he has been doing in the last few weeks. By all accounts, the message he sent the company at the plant was pretty strong and they seem to have received that message. I think that the contacts with the Navy can only be to the good in terms of helping to get their greater involvement.

I think we need to direct ~~the~~ our staff that we want to get the bottom of the problems there and stay on top of this

815 improvement program, and if they don't shape up, ~~put in~~ take
816 enforcement actions or whatever it takes to get the kind of
817 improvement that we want to see at that place.
818 Mr. MARKEY. Again, Admiral Rickover or Admiral McKee
819 would never allow their submarine fleet to operate with the
820 level of sloppiness and contamination which is prevalent
821 throughout the history of this plant. They have a
822 responsibility to ensure that this company understands the
823 standards that the Navy expects to protect worker health and
824 safety in the environment and the surrounding areas, and as
825 well, let's not forget that NRC staff reports over the years
826 have indicated problems here and the NRC's record is
827 something that is very, very spotty and inconsistent in its
828 commitment and understanding.
829 And what I think the purpose of this hearing will be,
830 amongst other things, is to help to identify the source of
831 the problem, which is that national security cannot be
832 involved to protect private industries or even the Navy from
833 having to abide by values in our society which have without
834 question evolved over the last 30 years that place a much
835 higher value upon health, safety, environmental concerns,
836 while at the same time understanding that national security
837 interests have to remain paramount. But they both can be
838 done simultaneously.
839 Mr. ASSELSTINE. I think we all agree. Certainly I do.

840 DCMN MILTON

841

842 Mr. MARKEY. But it is important for us to understand t
843 people have been victimized by a lack of understanding of
844 the need to balance those interests while maintaining a high
845 level and that is the objective that hopefully today's
846 hearing will achieve.

847 Mr. BERNTHAL. A short comment, Mr. Chairman.

848 I agree that Admiral Rickover wouldn't have approved
849 generally of the appearance of that plant. Having had some
850 experience in my professional history with laboratories and
851 what they may or may not look like, what I would say,
852 though, is it is an old plant and it is a custom-built
853 plant. I don't think Admiral Rickover would ever
854 contemplate trying to build or operate a plant of that type.

855 The navy is, as you know, constructing an additional
856 facility now in South Carolina, I believe. In many
857 respects, a custom-built plant like this, when I went
858 through it, I realized, it would be hard to make it look
859 pretty after this many years, so the option is that you
860 either stick with it and continue to accept what is by any
861 account a very, very high quality product, or you end up
862 having to start from scratch and build a new facility. And
863 that is about where you are there.

864 So it has been a difficult regulatory dilemma for us in

865 many respects, not the least of which is the Navy's
866 insistence that this is an important facility to their
867 operations.
868 Mr. MARKEY. I guess my point here would be that althoı
869 Tennessee is very interested in doing well in the Miss
870 America Pagent, we weren't talking about its prettiness in
871 terms of its surface attractiveness. We are talking about
872 whether it, in fact, was clean, whether it provided for the
873 basic fundamental protection of the workers and the
874 environment. And there it has failed.
875 It may not be the prettiest site in the world, but ther
876 are a lot of places like that that still can operate
877 maintaining minimal levels of regard for safety, health,
878 environment, and worker safety, and that is really what the
879 concern is here.
880 I want to address the issue of the NFS decommissioning
881 fund. I understand that the company has claimed that
882 information on estimated decommissioning costs and the
883 amount of money in the fund is proprietary. The NRC has
884 supported that claim.
885 Is this position consistent with decommissioning fund a:
886 cost information on reactors and other fuel cycle
887 facilities?
888 Mr. ZECH. As regards proprietary information, Mr.
889 Chairman?

890 Mr. MARKEY. Maintaining secracy around the question o:
891 how much money will be available to ensure that when this
892 plant is decommissioned, that there will be enough resource:
893 in this company present to protect the environment in this
894 area for an indefinite period of time against the
895 contamination risk that could potentially be run in the long
896 run if these materials are not properly handled.
897 And I guess the question goes to the public's right to
898 know what type of resources are available in this company to
899 give those kinds of assurances and what is the NRC doing to
900 ensure that when this plant is finally shut down and it is
901 one radioactive hot box, that in perpetuity there is enough
902 money here that the company has access to that will protect
903 the public forever from the dangers of the contamination
904 from this plant.
905 What kind of information can you give this committee, w
906 kind of assurances can you give? We have a track record of
907 the company starting with West Valley in New York which is
908 very questionable and the people of Tennessee have a right
909 to know whether this company has those resources, and if
910 not, what steps will the government take to make sure these
911 people are protected.
912 Mr. ZECH. First of all, as regards decommissioning, I a
913 sure you are well aware that the commission has for some
914 time considered very seriously decommissioning matters for

our nuclear power plants. In the fuel cycle plants, we don't have at the present time any requirements for decommissioning plants as far as I am aware.

On the other hand, we have placed amendments on the license conditions for fuel cycle facilities and we have a rulemaking that should become effective in 1987 that will codify these requirements. So it isn't a subject we have ignored; it is a subject we have looked at very carefully.

I would like to call on someone else to give you more on that matter.

Mr. Bill Crow.

Mr. CROW. I am Bill Crow, chief of the Uranium fuel ~~Union Licensing~~ licensing Branch.

Back in 1977, we started adding conditions to ~~the~~ major fuel cycle license~~s~~ ~~of the majors~~ to require them to submit decommissioning plans ~~and~~ in enough detail so they could estimate the cost for decommissioning. NFS is one of the facilities that did this and in 1978, we incorporated their decommissioning plan and their financial arrangements as a condition of the license.

They stated that they felt the financial information was proprietary because the release of it would hinder their competitive position in the industry. We accepted this.

Mr. MARKEY. Do you have that information?

Mr. CROW. Yes.

940 Mr. MARKEY. Can you make them provide the information
941 you?
942 Mr. CROW. Yes, sir.
943 Mr. MARKEY. Are you satisfied that the financial
944 resources available to this company are sufficient to
945 protect the people of Tennessee for as long as this site
946 will exist?
947 Mr. CROW. In their financial plan they put so much mon
948 into an escrow account annually and they periodically look
949 at the estimated costs for decommissioning the plant, and
950 update this cost.
951 The original estimate was given to us in 1978. We
952 accepted that. In 1983, they re-evaluated the cost and they
953 essentially doubled the amount and increased the quantity
954 going to the escrow account. They estimated that this
955 account would be built up over a period of ten years.
956 We have recognized that there are additional areas that
957 need--we need for them to take a look at and right now we ar
958 reviewing their application for renewal. We have asked them
959 to re-evaluate the cost of decommissioning the ponds. There
960 is a pile of dirt that was removed ~~in~~ along the railroad that has
961 to be disposed of. We have asked them to include that as
962 well as other contaminated areas in the plant.
963 Mr. MARKEY. What additional areas are they looking at
964 right now in terms of costs?

965 Mr. CROW. We have asked them to take a look--as I say,
966 there is a mound of dirt there that has to be disposed of
967 and the ponds as well as some additional buildings that
968 weren't included in the first cost estimate.
969 Mr. MARKEY. Where did the mound of dirt come from?
970 Mr. CROW. There was a contaminated area outside the
971 facility fence.
972 Mr. MARKEY. Off-site?
973 Mr. CROW. Off-site, where a creek used to run several
974 years ago, and they diverted the creek stream, and
975 apparently even though the discharges to that creek ~~were~~ met
976 regulatory limits, either by ion exchange or by settling the
977 material decontaminated the soil. This was picked up, as I
978 understand it, in 1979 and we required them to remove it.
979 Mr. MARKEY. How big is this mound?
980 Mr. CROW. I have not seen it.
981 Mr. MARKEY. Is 100,000 cubic feet a reasonable estimate
982 of the size?
983 Mr. CROW. About 100,000 cubic feet, I am told, 200,000.
984 Mr. MARKEY. So from off-site, you have taken contaminat
985 earth, which is perhaps the size of 50 by 50 by 40, a very
986 large area? Would you agree with that?
987 Mr. CROW. It is about 200,000 cubic feet.
988 Mr. MARKEY. About 200,000. Does the NRC itself take an
989 time to calculate what the costs might be for

990 decommissioning? Do you have an estimate in your own mind?

991 Mr. CROW. We evaluated their estimate and in 1978 we

992 agreed with it. We agreed with the escalated cost in 1983.

993 We feel that additional funding is necessary.

994 Mr. MARKEY. Does the cost of decommissioning include

995 waste pits that have to be cleaned up?

996 Mr. CROW. No, sir, it does not, but we are asking for

997 that information now.

998 Mr. MARKEY. Have you traditionally included that as a

999 cost?

1000 Mr. CROW. On their original submittal, they identifie

1001 this as an area that they were going to have to look at.

1002 They could not estimate the cost because they were

1003 evaluating disposing of it in a bulk form rather than in a

1004 package form.

1005 Mr. MARKEY. Do you agree that the NFS decommissioning

1006 fund may just barely cover retention pond decommissioning?

1007 Mr. CROW. I don't think the fund today would cover tha

1008 Mr. MARKEY. You don't think it would cover that?

1009 Mr. CROW. No, sir.

1010 Mr. MARKEY. So what does that tell us about the funds

1011 available for the rest of the site?

1012 Mr. CROW. That is why we have asked them to re-evaluat

1013 it and come up with a new cost for decommissioning and

1014 adjust the quantity of money going into their escrow account

1015 accordingly.

1016 Mr. MARKEY. So you agree then that the available funds
1017 are woefully inadequate in order to decommission the plant
1018 if it had to be done right now, immediately?

1019 Mr. CROW. I think they are inadequate, yes, sir.

1020 Mr. MARKEY. Do you think that the people of Tennessee
1021 should be told that there is not sufficient funding
1022 available to decommission this plant?

1023 Mr. CROW. I would look to the corporation--irrespective
1024 the quantity of money in the fund--I would look to the
1025 corporation, really, to provide the increased funding for
1026 decommissioning. There is a condition of the license that
1027 specifies that at the end of plant life, they have to
1028 decontaminate the facility and ground so they can be
1029 released for unrestricted use.

1030 Mr. MARKEY. I understand, but we are dealing with a
1031 company that left a state holding a $400 million bag that
1032 had to be filled with some money but it wasn't going to be
1033 coming from this company.

1034 I think the people of Tennessee might want to know what
1035 the costs might be over the long term, over the next 40, 50,
1036 100 years in terms of decommissioning and isolating this
1037 area so there would not be threats to the public health.

1038 Mr. ZECH. Mr. Chairman, you asked whether it is woefully
1039 inadequate. I think you are trying to put words in his

1040 mouth.

1041 He said it is inadequate. We have been tracking that

1042 system all along. We have asked for an update of the thing

1043 now.

1044 I think that he is being very candid with you and wheth

1045 it may be somewhat inadequate now, I think the fact that we

1046 have asked for review should show you; it shows me, that we

1047 are trying to stay on top of the situation and be realistic and

1048 candid about it.

1049 It seems to me we have acted very responsibly in this

1050 matter and we are not woefully inadequate and it is not a--

1051 Mr. MARKEY. Your top guy just told us that it is

1052 inadequate. I am not putting words in his mouth.

1053 Mr. ZECH. You said woefully inadequate.

1054 Mr. MARKEY. Inadequate is bad enough.

1055 Mr. ZECH. He said we are reviewing the situation to

1056 upgrade that part of inadequacy that he is concerned about.

1057 Mr. MARKEY. If it is inadequate for the retention ponds ~~funds~~

1058 how is it for the rest of the site?

1059 Mr. ZECH. I think you are making something out of this

1060 that it isn't. If the cost of decommissioning has increased

1061 somewhat and we are reviewing it, that is what we are doing.

1062 I think that is appropriate, responsible action on our

1063 part, and the fact that it is behind somewhat of perhaps

1064 inflation or whatever now, I think is not something that you

1065 should be concerned about. If we weren't reviewing it, you
1066 should be concerned.
1067 Mr. MARKEY. Give us a ball park figure, then. It doesn
1068 have to be Fenway Park; it could be Yellowstone Park. Just
1069 give us a round number that you think might approximate what
1070 the cost would be.
1071 Mr. ZECH. I am not going to throw out a number. I will
1072 ask my staff if he has an idea of a number.
1073 We are watching the decommissioning cost and as they
1074 change, we are trying to change with it.
1075 Mr. MARKEY. I understand, but you have to understand the
1076 skepticism with which this committee is looking at this
1077 company. We do not view NFS as a paradigm of
1078 responsibility. Its track record in New York and here gives
1079 us real cause for concern that they may not be properly
1080 anticipating the full costs of all the contamination which
1081 could potentially endanger this area in perpetuity, and it
1082 may not be putting aside the proper financial resources to
1083 ensure that those concerns will be taken care of, and as a
1084 result, they might be coming back potentially to the Federal
1085 Government as the deep pockets of last resort and we want to
1086 properly anticipate what those costs might be and to also
1087 warn the people of Tennessee that there may be costs
1088 attendant to having a plant of this nature in this area.
1089 Mr. Asselstine.

1090 Mr. ASSELSTINE. I would say that the positive part abo
1091 the decommissioning plan they have is at least the money
1092 they have set aside is set aside and it is under a third-
1093 party control so there is some assurance that that money
1094 will be available.

1095 I am skeptical ~~of~~ on relying just on the corporate assets
1096 this company beyond the amount separated out in this fund to
1097 assure decommissioning because of its past performance. I
1098 think we ought to take a hard look at this proprietary
1099 claim.

1100 It is if NFS has to tell the world the size of this fund
1101 when they go for decommissioning bids, everyone will come in
1102 with that amount of money since they know how much money has
1103 been set aside. In the reactor area, things are different.

1104 We have in our proposed regulations set an estimate of
1105 what we think would be needed to decommission power plants.
1106 That has been a major area of interest and concern in terms
1107 of public comments on the decommissioning rule and it is
1108 something I think needs attention in this area.

1109 I look at this proprietary claim skeptically. ~~and~~ We ough
1110 to look at it. And I agree that the people of Tennessee
1111 have a legitimate interest in knowing what the estimates are
1112 for cleaning the place up, what the company thinks the
1113 estimates are for cleaning the place up, and they ought to
1114 have an opportunity to comment on it as well.

1115 It is important to ensure that enough money will be
1116 available for decommissioning the facilities when those
1117 facilities go out of ~~business~~ operation. based upon our past experience
1118 ~~that~~ when that happens, it is tough to find the money.
1119 Mr. MARKEY. Just to flesh out this point, utilities th
1120 run nuclear power plants have to make available to public
1121 utility commissions across America the amount of resources
1122 they have available for the decommissioning of those nuclear
1123 power plants. And that information can be made public and
1124 is made public.
1125 Mr. ASSELSTINE. That is right.
1126 Mr. MARKEY. But here we have a company that creates
1127 dangers to public health and safety, very much akin to what
1128 potentially could happen at a nuclear power plant if not
1129 properly attended to and properly financed, but they here
1130 argue that for some reason they are to be put in a category
1131 where this type of information is proprietary in nature,
1132 whereas for utilities it is not considered so.
1133 I guess my fear is that this whole shield of national
1134 security which envelopes this plant, somehow or other is
1135 used by the plant owners here to create a shield around
1136 information that in any other setting would not be
1137 considered proprietary, and my concern is that as a result,
1138 the people of Tennessee are put in a very unique position,
1139 that if this was a nuclear power plant and it was creating

1140 an identical kind of threat over the next 100 or 200 years
1141 as part of a decommissioning process, that this information
1142 that is the financial information, would be available for
1143 the people in Tennessee in this subcommittee.
1144 But because of the national security twist here, they
1145 trying to use that as their protective shield against the
1146 information being made public whereas it is completely
1147 unrelated to national security, this particular question.
1148 And I guess for my perspective, I think it would be a v
1149 healthy situation if we could make perhaps a re-assessment
1150 of the appropriateness of allowing this information to be
1151 enveloped into this whole aura of secrecy which surrounds
1152 this plant for other purposes.
1153 Mr. ZECH. Mr. Chairman, if you are asking us to take a
1154 look at the appropriateness of this proprietary clause, I
1155 think that is a reasonable request to make.
1156 We have accepted that proprietary request for some numbe
1157 of years and perhaps we should take another look at it. If
1158 that is what you are asking us to do, I would be pleased to
1159 do that.
1160 We don't have too many of these fuel cycle facilities to
1161 monitor, as you know. We have focused more of our attention
1162 on the nuclear power plants.
1163 I would certainly be willing myself to take another look
1164 at why we are doing this if that is what you are asking us.

1165 Perhaps that is a very legitimate question and I would be
1166 happy to do that if that is what you want us to do.
1167 Mr. MARKEY. That would be very helpful.
1168 Mr. ZECH. I don't know how the other commissioners fe
1169 but I would support that.
1170 Mr. MARKEY. Commissioner Bernthal.

1171 RPTS STEIN

1172 DCMN ROSS

1173

1174 Mr. BERNTHAL. Mr. Chairman, I suspect that you will h
1175 a majority very quickly to take another look at this
1176 question of the proprietary nature or the appropriateness o
1177 the proprietary claim by the company in this regard.

1178 You mentioned, though, a few minutes ago, that it was i
1179 job perhaps of this hearing, certainly of the NRC, to assist
1180 the public in properly anticipating the cost of
1181 decommissioning, and I want to focus on that, because I
1182 agree with that.

1183 One of the difficulties in our relationship with the Na
1184 over the years--not that it has been contentious--but one of
1185 the reasons it has been hard to regulate is that sometimes
1186 it has been hard to tell exactly where the ultimate
1187 responsibility lay. In the area of decommissioning, it is
1188 clearly ours, and it seems to me we can, with no concern
1189 whatsoever, proceed in trying to determine what that cost
1190 will be.

1191 What I would say, however, is that the American people--
1192 you, Mr. Chairman, I am sure--are under no illusion, nor
1193 should you be, that that cost will not ultimately be borne
1194 by the American people and the taxpayers as we go along, ~~but~~ and
1195 it should be. And I would, as a resident of the State of

1196 Tennessee, do all in my power to see to it that the State o
1197 Tennessee is not left holding the bag on this matter.
1198 It will be paid by the taxpayers. The money will be p
1199 aside through the fees they pay this company to prepare the
1200 material for naval nuclear fuels.
1201 Mr. MARKEY. We are going to have to move on here.
1202 This company is owned by Texaco, and I guess one of the
1203 questions I would ask is that you take a look at that
1204 question: How much money should come from Texaco
1205 potentially in view of the potential contamination, the
1206 unanticipated risks that are being posed to the residents of
1207 this area over the long run that are not perhaps in any way
1208 related to the Navy or the Federal Government but, rather,
1209 this private company's management of this operation? And I
1210 would ask that you give us that re-analysis of this whole
1211 financial picture of this plant on a timely basis.
1212 Could you give us an idea of how long it might take you
1213 make that kind of assessment; that is, on the proprietary
1214 information and the potential sources of funding?
1215 Mr. ZECH. I may have misunderstood your question. I
1216 thought you were asking about the proprietary part, and that
1217 is what I committed to.
1218 As far as the financial things, I would have to look at
1219 that.
1220 Mr. MARKEY. How long will it take the commission to make

1221 a decision as to the appropriateness of continued shields o
1222 this information under the proprietary argument, proprietar
1223 information; how long might it take you to make a review of
1224 that?
1225 Mr. ZECH. Not long. I am going to go to Vienna Monda
1226 for two weeks, but I will try to get something out before I
1227 go. Maybe in three weeks we should have an answer on that.
1228 Mr. MARKEY. How about the other information?
1229 Mr. ZECH. I don't know. You are asking me now to look
1230 into the financial; I don't know. I would have to look at
1231 that. We will look to see whether we can do anything about
1232 it.
1233 I don't know if we have the authority to do that. I wo
1234 have to look into the whole question. I just don't know. I
1235 would have to ask my lawyers and others, to see. I will
1236 look into that, though, and see whether it would be
1237 appropriate for us to do so; and, if it is, we will do it.
1238 But, if it is not, we can't do it.
1239 Mr. MARKEY. And one final attempt to perhaps give the
1240 subcommittee some indication of the amount of money that
1241 right be roughly involved in the decommissioning of this
1242 plant?
1243 Mr. ZECH. I will have to again look into that, Mr.
1244 Chairman. I can't give you a number off the top of my head.
1245 Mr. MARKEY. Can you give us a rough idea, a rough numbe

1246 as to the total decommissioning of the plant, a range? Do
1247 you have any idea what the range might be?
1248 Mr. ZECH. I understand we are getting an analysis fro
1249 the licensee. We are due to get that in January coming up.
1250 When we get that, we will be able to give you an assessment
1251 Mr. MARKEY. Will that analysis include the waste pits
1252 Mr. ZECH. Yes, it will.
1253 Mr. CROW. The waste ponds. The burial pits, no, sir.
1254 Mr. MARKEY. Why won't the waste pits also be included?
1255 Will not they have to be decommissioned, as well?
1256 Mr. CROW. That material is disposed of in accordance w
1257 the regulations. What we will do is evaluate that burial
1258 ground to see whether or not there is any potential for
1259 adverse impact on the environment. If we find there is, we
1260 will require them to remove the material.
1261 Mr. MARKEY. Are you going to turn this area into a
1262 radioactive waste dump?
1263 Mr. CROW. We don't intend to, no.
1264 Mr. MARKEY. What does the State of Tennessee have as lo
1265 term plans for the site?
1266 Mr. ZECH. The answer was, if there is any radiological
1267 problem here, we will be involved in solving it. We have no
1268 intention of turning it over to the State with a
1269 radiological safety problem.
1270 Mr. MARKEY. I understand. What we have to know is what

1271 is going to be done with it and what is the source of
1272 funding to ensure that it is isolated and offers no threat
1273 to the environment.
1274 Why are you not including it in the study? I am tryir
1275 get a total picture of what is going on here in Erwin; and
1276 to the extent that you are excluding certain very important
1277 questions, we are not going to have the total picture. We
1278 can't do this piecemeal. Let's do it once, do it right, an
1279 put together a plan to protect these people forever.
1280 We can't go on this way. We have been doing this with
1281 piecemeal studies for the last decade, and it is time we had
1282 a definitive analysis of what the cost will be.
1283 Mr. CROW. We will do a radiological assessment of the
1284 burial ground. And if there is potential for adverse
1285 impact, we will require it to be removed.
1286 Mr. MARKEY. Can we include what the cost might be to h
1287 it removed?
1288 Mr. ZECH. Yes, Mr. Chairman. We will do our best to
1289 include that.
1290 Mr. MARKEY. I want to move on to the issue of emergency
1291 planning at the Erwin plant. The NRC staff has identified
1292 several reasons why this plant poses unique dangers for
1293 accidental exposure to off-site residents. These include a
1294 higher, better dose gram of uranium released, a history of
1295 accidental releases, the fact that NFS is located in a hole

1296 so that a low altitude release will blow into homes and
1297 surrounding hills, and the nearest resident is closer to NF
1298 than at some similar plants, homes within 50 yards of the
1299 plant. So, you have got a serious problem.
1300 In July of 1982, the NRC staff proposed additional
1301 emergency planning measures for the plant, including a
1302 warning system and instruction brochures for nearby
1303 residents. Why did the commissioners not approve these
1304 measures back in 1982?
1305 Mr. ZECH. Mr. Chairman, let me first say that, of cour
1306 emergency planning at a fuel facility is quite different
1307 from emergency planning at a nuclear power plant facility.
1308 There are no radiological fission products, no inventory of
1309 that at a fuel cycle facility. And, therefore, you don't
1310 really have that type of radiological hazard. That is very
1311 important, to recognize that.
1312 Mr. MARKEY. So you don't think an emergency plan is
1313 necessary?
1314 Mr. ZECH. Please, let me go on. I will get to that.
1315 You don't have decay heat removal, so it is a different
1316 situation. You don't have any long-term cooling problems
1317 and those kinds of things. You have to recognize that the
1318 hazards are quite different.
1319 You have chemical and toxic hazards to be concerned about
1320 and therefore when you make an emergency plan on a fuel site

1321 it is a different approach. But we do have a contingency
1322 plan for emergencies at a fuel site, and they require promp
1323 notification; they require attention to medical aspects of
1324 on-site problems. And, therefore, I think that is important
1325 to recognize that there is a plan in place, but it is
1326 focused on that specific type of facility.
1327 Again, I would like to call on Mr. Bill Crow to elabora
1328 a bit on that emergency planning.
1329 Mr. MARKEY. Before we do that, the question here
1330 specifically is, in 1982 the NRC--that is, the
1331 staff--recommended to the commission that there be additional
1332 planning measures for the plant, including a warning system
1333 and instruction brochures for nearby residents. It is now
1334 1986, and we still don't have an emergency plan.
1335 Mr. ZECH. We do have an emergency plan for that facilit
1336 Mr. MARKEY. You don't have the additional instructions
1337 that the staff recommended for the plant. The question is,
1338 why not? And when do you have any plans to do anything
1339 about that?
1340 Mr. ZECH. The proposed rule is now before the commission
1341 It has gone through a lengthy period of review. We have
1342 tried to, I believe, incorporate events that have happened
1343 recently in order to ensure that the rule is going to be a
1344 satisfactory one.
1345 My understanding is, it is before the commission now. It

1346 is being reviewed, and I anticipate that the rule would be
1347 out some time before the end of the year.
1348 Mr. MARKEY. Does this rule include these additional
1349 recommendations that were made by the NRC staff in 1982?
1350 Mr. ZECH. I believe it does not, but I would prefer to
1351 call on a staff member who might be able to give you more
1352 accurate information.
1353 Mr. Crow?
1354 Mr. CROW. The new rule will require the licensee to
1355 submit the contingency or emergency plan to local
1356 authorities and to the State and get comments on it. These
1357 comments then will be given back to us for review and for
1358 inclusion as we see necessary.
1359 Mr. MARKEY. Mr. Crow, let me ask, does the proposed rul
1360 include the staff recommendations made in 1982?
1361 Mr. CROW. No, sir.
1362 Mr. MARKEY. It does not? Why not, Mr. Crow? What
1363 decisions did you make on that?
1364 Mr. CROW. One of the reasons for the requirements in 19
1365 was because of the--we made a calculation--it was a very
1366 conservative calculation--that if a kilogram of UF6 was released, there
1367 was a possibility of a specific dose to the nearest
1368 resident. This was because we calculated the release at
1369 ground level. Since that time, the NFS has installed a 30-
1370 meter stack; and when you add plume rise on top of that,

1371 there is no danger of that plume hitting right into the
1372 hillside across from the plant.
1373 Mr. MARKEY. Let me read from William Dirks, from the N
1374 staff, in 1982: ''Accidents in plant areas not served by
1375 the new ventilation system could, however, still have
1376 sufficient potential impact on the public to require prompt
1377 notification.'' That is from the NRC staff, now, to the
1378 NRC, in 1982.
1379 Commissioner Asselstine, can you help enlighten us on wh
1380 has caused the delay and deletion of the recommendations
1381 made by the staff?
1382 Mr. ASSELSTINE. I think the Commission decision in 1982
1383 was premised on the assumption, based upon what we had heard
1384 from the staff, that we were going to get the proposed rule
1385 shortly, within a couple of months of when we received this
1386 proposal in July of 1982. I would have to say, I was part
1387 of that decision. I supported it at the time because it
1388 made sense to look at all these facilities together and look
1389 at the rule. And I think, frankly, we dropped the ball then
1390 and didn't get the rule until after the accident at the
1391 Sequoia Fuels facility.
1392 I think the 1982 decision was wrong. And, in hindsight,
1393 we would have been better off--
1394 Mr. MARKEY. The 1982 decision not to have regulations at
1395 that time?

1396 Mr. ASSELSTINE. That is right.

1397 I think we should have imposed the license conditions.
1398 That is a change in view. I supported the other position at
1399 the time.

1400 I have real problems with the rule that the staff sent
1401 down because of its lack of measures on off-site emergency
1402 planning. There are additional questions that I have about
1403 the rule because it also weakens some of the on-site
1404 emergency planning measures that were imposed by order on
1405 materials facilities early on.

1406 It seems to me that the lack of these kinds of provisio
1407 in this proposed rule, and the weakening of the on-site
1408 emergency planning provisions, sort of flies in the face of
1409 the lessons learned from the ~~Sequoia~~ Sequoyah Fuels accident.
1410 Indeed, many of the things that Kerr-McGee has done in
1411 ~~Sequoia~~ Sequoyah Fuels are very similar to the kinds of measures the
1412 staff had originally proposed be imposed on NFS Erwin.

1413 I think we ought to take a hard look at the lessons
1414 learned from the ~~Sequoia~~ Sequoyah Fuels accident in terms of what we
1415 need to do about emergency planning for these facilities in
1416 general. And I think the kinds of conditions the staff had
1417 proposed in 1982, the kinds of changes that Kerr-McGee is
1418 making, are precisely the kinds of things we ought to be
1419 thinking about for NFS Erwin and for some of these other
1420 facilities.

1421 This process also got bogged down, the rule got bogged
1422 down, with our committee to review generic requirements, and
1423 much of the focus was on: "Do we need to do any of this?" I
1424 think that largely the way it has come out, which is a rule
1425 that waters down on-site emergency planning, and it doesn't
1426 make these kinds of changes on off-site planning, is a
1427 result of that process where people have challenged--
1428 Mr. MARKEY. You are saying that, in hindsight, you
1429 believe that a mistake was made in not implementing a
1430 specific plan for this plant while awaiting a generic rule,
1431 because even as this rule is being promulgated it does not
1432 provide adequate planning for emergency measures for the
1433 Erwin plant, four years after the great anticipation?
1434 Mr. ASSELSTINE. That is right. And in some respects, i
1435 is actually even worse than what is in place now. It
1436 relaxes it.
1437 Mr. MARKEY. Do you disagree, Commissioner?
1438 Mr. ZECH. I am still reviewing it. I have not come to
1439 conclusion yet. I agree with certain aspects of it.
1440 I do think that it is important to incorporate what we
1441 have learned at the Kerr-McGee plant, and I think we should
1442 give it a lot of thought. And I intend to do that. I don't
1443 have a conclusion yet.
1444 Mr. MARKEY. May I say, for my part, that I just think i
1445 is so important for us to just do it right when we do it the

1446 first time. We don't want to have a continued protracted
1447 debate--
1448 Mr. ZECH. We always try to do it right the first time.
1449 If we make mistakes, we admit them. If we have made
1450 mistakes, we correct them and do it right the second time.
1451 Mr. MARKEY. I prefer in this case, since we have been
1452 waiting so long, that the expectation could be that we do it
1453 right the first time. If it was done in a six-month time
1454 frame in 1982, it would be understandable. But now, five
1455 years later, it would be hoped that as part of that five-
1456 year period of time that we would have been very sensitized
1457 to the community sentiments on these issues, and that we not
1458 still continue to have widespread community dissatisfaction
1459 at the conclusion of this rule-making process.
1460 Let's have it finished once and for all, and that is my
1461 one request to you.
1462 Mr. ZECH. I am sure each of my colleagues will
1463 respectfully take your thoughts into consideration, and we
1464 will try very hard to do what we think is right.
1465 Mr. MARKEY. Because this is an area where I think we
1466 definitely can find some agreement, so we don't have to
1467 revisit it. I hope that whatever recommendation is being
1468 made, that the staff recommendations of 1982 will be looked
1469 at with a skeptical eye by the whole commission.
1470 I would like to move on to the allegation of kidney

1471 problems among the NFS workers. Why wasn't the NRC on top
1472 of this issue, Mr. Chairman?
1473 Mr. ZECH. I am not sure we were not on top of it, Mr.
1474 Chairman. But perhaps if that is not true, I better call on
1475 somebody who has followed that more at the regional level
1476 perhaps.
1477 Mr. MARKEY. The point is, so you can understand why I
1478 raised the question in that fashion, the NRC didn't know
1479 about the allegation until the subcommittee brought it to
1480 the NRC's attention; and, because you don't have medical
1481 expertise at the commission staff level, the Atomic Union
1482 had to wait months and months for the study to even start.
1483 Have you even started medical tests on the workers yet,
1484 Mr. Chairman?
1485 Mr. ZECH. I don't think so, Mr. Chairman, and I don't
1486 know that really that is in our area of expertise. But
1487 certainly that is why we are talking with the National--
1488 Mr. MARKEY. You are talking about uranium.
1489 Mr. ZECH. Yes, but let me say, too, Mr. Chairman, if
1490 somebody brings to our attention a problem, anything to do
1491 with uranium, we will look into it. I don't know why it was
1492 not brought to our attention. I thought that it was. If it
1493 came to you or whatever first--we will look into it whenever
1494 we get the information.
1495 We are not trying to duck our responsibilities.

1496 Mr. MARKEY. Why would the union come to a congressional
1497 subcommittee--
1498 Mr. ZECH. I have no idea. You will have to ask them.
1499 Mr. MARKEY. What I am afraid of, Mr. Chairman, is that
1500 the union just didn't have any faith, any confidence in the
1501 NRC any longer.
1502 Mr. ZECH. That is their decision, Mr. Chairman.
1503 Mr. MARKEY. It is their decision, but I have talked to
1504 these people. This is not some granola-chomping crowd we
1505 are talking about. These are people from Tennessee, the
1506 Volunteer State, working at a high security defense plant,
1507 who have tremendous loyalty to our country and deference to
1508 our government, who by-passed the key agency that has
1509 responsibility for providing for their health and safety.
1510 It has to raise some concern that they wouldn't come to the
1511 commanding officer, but instead feel they have to go higher
1512 almost in order to ensure that their concerns are being
1513 taken care of.
1514 It gives me great concern.
1515 Mr. ZECH. It concerns me, also. I have lived in
1516 Tennessee for two years and I know the folks of Tennessee as
1517 wonderful citizens and great Americans. I have many friends
1518 in the State of Tennessee, so I have no qualms about saying
1519 that they are true blue Americans.
1520 But let me say this: There are various reasons they may

1521 not have come to the NRC. I invite them to come to us with
1522 any concern. But if they don't, as soon as we hear from yo
1523 or the union, we will look into it.
1524 I hope they would come to us first. That is certainly
1525 way we have our system set up.
1526 Mr. MARKEY. Have you started the medical tests?
1527 Mr. ZECH. I will call on Mr. Collins.
1528 Mr. COLLINS. I am Doug Collins. I am from the NRC Reg
1529 2, Chief of the Emergency Preparedness and Radiological
1530 Protection Branch in Region 2.
1531 To summarize, once we received your letter which indica
1532 that there were some potential health effects, problems
1533 among the workers at NFS, and your referencing us to some
1534 transcripts which detailed these concerns, we immediately
1535 contacted the OCAW to attempt to get a copy of the
1536 transcripts, or a copy of the tape, so that we could
1537 evaluate the information.
1538 There was some delay in our getting the transcripts, I
1539 think of a couple of months, but we finally did get
1540 transcripts. When we got the transcripts, we reviewed the
1541 information. We then proposed to the National Institutes of
1542 Occupational Safety and Health, NIOSH, a study to determine
1543 whether there were any health impacts. That organization,
1544 in fact, as I understand it, is a legislatively mandated
1545 group to review these kinds of things.

1546 We have, back in April, begun preliminary discussions
1547 NIOSH to determine if they were available, the real experts
1548 were available. We have met with them. We have given them
1549 background information on the circumstances.
1550 We now have another meeting scheduled at the site for
1551 October 15 where these medical experts from NIOSH will be
1552 able to look at the information that is available at the
1553 site so that they can better fashion or put together the
1554 type of study that might best meet the--
1555 Mr. MARKEY. So, when will the workers have the answers
1556 then, Mr. Collins? That is what they want to know.
1557 Mr. COLLINS. I can't give you a schedule because it wou
1558 really be speculative.
1559 Mr. MARKEY. Will they know this year?
1560 Mr. COLLINS. From the discussions with NIOSH, it
1561 could--depending on the study, it could be a relatively quick
1562 study or it could take several years.
1563 Mr. MARKEY. Several years?
1564 Mr. COLLINS. For some epidemiological studies. It
1565 depends upon the study that NIOSH proposes.
1566 Mr. MARKEY. Why can't they get a quick answer?
1567 Mr. COLLINS. I am not an expert on epidemiology. We
1568 depend on the experts. We have indicated some of the
1569 studies would require looking into public records on causes
1570 of death, going back into the NFS records to determine what

1571 exposure--

1572 Mr. MARKEY. Is it possible, Mr. Collins, for us to get
1573 preliminary, albeit not definitive but preliminary, and
1574 relatively quick study pending the completion of your decade
1575 long study that might ensue in the wake of that, so that the
1576 workers might be given some indication of what the
1577 likelihood is that their concerns which they have are in
1578 fact valid?

1579 Mr. COLLINS. If NIOSH can scientifically, validly condu
1580 such a study, we will request that such a study, I think, be
1581 initiated. I can't speak for the commission--

1582 Mr. MARKEY. NRC cannot conduct such a study?

1583 Mr. COLLINS. We don't know about the study yet.

1584 Mr. MARKEY. Can you request that that kind of study be
1585 done?

1586 Mr. COLLINS. We can, yes.

1587 Mr. MARKEY. Will you request that?

1588 Mr. COLLINS. We have requested a range of studies. One
1589 of the options that they are determining the feasibility of
1590 is such a study.

1591 Mr. MARKEY. There are apparently other studies on kidne
1592 damage to uranium mill workers that indicate that the NRC's
1593 exposure regulations may be too weak. Could you describe
1594 those studies, Mr. Collins?

1595 Mr. COLLINS. I was not involved in the studies, but the

1596 representative from NIOSH, who we have requested to perfor
1597 the studies at NFS, was the physician who was in charge of
1598 those studies. Those studies were presented--the results
1599 those studies, along with other studies, were presented at
1600 symposium last October on uranium. Some of the informatior
1601 presented included information on animals as well as humans
1602 That information is now under consideration, as I
1603 understand it, by our Office of Research, and is being peer
1604 reviewed and referred to the National Scientific Study
1605 Committees of the National Academy of Sciences for
1606 consideration as to whether any standards need to be
1607 changed.

1608 Mr. MARKEY. Mr. Collins, what do the studies on human
1609 beings indicate?

1610 Mr. COLLINS. I have not read the study. Recently, the
1611 are indications that there may be effects discernible now
1612 with more sophisticated medical testing that would show some
1613 effects that were not discernible when our regulations were
1614 initially drafted.

1615 Our regulations, though, were based on the best science
1616 available at that time. As science progresses and new
1617 information becomes available, we review it and take that
1618 into consideration in adopting new standards.

1619 Mr. MARKEY. Let me read this to you, a memo from Rober
1620 Minague, Director of the Office of Nuclear Regulatory

1621 Research--to him, from J. Nelson Grace, the Regional
1622 Administrator--on the proposed study of health effects fron
1623 exposure to uranium at NFS.
1624 Mr. Grace says: ''Amongst other things, in addition,
1625 recently Dr. Paul Moreaux and Dr. Michael Fund and others
1626 have noted changes in kidney function in animals and man
1627 when exposed to concentrations of uranium below NRC
1628 limits.''
1629 That is a great concern, you can imagine, among worker:
1630 the plant, if they have been operating under the assumption
1631 that existing NRC regulations were sufficient to protect
1632 them, and if now studies are forthcoming indicating that
1633 exposure below those levels could be life-threatening.
1634 Mr. COLLINS. That is why we highlighted it in that mem
1635 We are pursuing it with the National Academy of Sciences for
1636 appropriate scientific review.
1637 Mr. MARKEY. But the question is, how much information
1638 you need before recommendations are forthcoming to make the
1639 regulations more stringent so that the public health and
1640 safety--would it not make more sense for us to err on the
1641 side of caution rather than continuing to operate in an area
1642 which clearly has some scientific murkiness to it, and
1643 contradictory information is now at hand?
1644 Would it not make more sense--and perhaps it is better t
1645 address this question to the commission--would it not make

1646 more sense, for at least the interim period, to raise the
1647 level of the standards for worker exposure and for
1648 conditions at the plant pending a final resolution of the
1649 scientific inquiry, whatever the period of time might be,
1650 and then at the conclusion of that scientific study to then
1651 with careful precision, establish standards for the long
1652 term?

1653 How much longer do we have to wait before we begin to
1654 implement regulations that, in fact, do reflect this
1655 scientific uncertainty as to the danger for the workers?

1656 Mr. ZECH. In a situation like this, Mr. Chairman, I th
1657 it is appropriate and responsible for us to consult with
1658 experts in the field. We are doing that. In consulting
1659 with the experts, if they look at the preliminary statements
1660 and comments that we have made, and if they give us any
1661 indication that it would be appropriate to modify our
1662 regulations, I think we should consider that.

1663 But they are the experts, and I think it is appropriate
1664 that we get some kind of recommendation from them. If we
1665 get such a recommendation, I think we could take such
1666 approach. But I think it is important to rely on expert
1667 advice rather than to go off and do something without
1668 thoroughly reviewing and trying to get the best information
1669 we can.

1670 Mr. MARKEY. I understand that.

1671 The question is, Mr. Chairman, are the union workers b
1672 used as guinea pigs waiting for this study to be completed,
1673 that may leave them exposed for months and years to
1674 dangerous levels of radiation, without any real information
1675 available to the commission as to the health consequences
1676 for the health and lives of these workers?

1677 Mr. ZECH. First of all, Mr. Chairman, it is certainly
1678 personal view that the plant is not operating with guinea
1679 pigs at all. I understand that we are operating that plant
1680 at a level of about 10 percent of what our regulations might
1681 call for, 10 percent of the limits. So far as I know, there
1682 is absolutely no harm to the workers at all.

1683 Let me call again on my expert.

1684 Mr. MARKEY. The point is, we don't know. We are still
1685 operating in an area where 10 percent higher might not be
1686 safe.

1687 Mr. ZECH. Not 10 percent higher. The whole limits, as
1688 understand it, is so high, 100 percent high, we are
1689 operating that plant generally at the 10 percent level, well
1690 below the NRC requirements. We are not operating that plant
1691 above NRC requirements. And although I understand that has
1692 happened two or three times over the years, we have
1693 documented those situations.

1694 But, again, you are asking me specific questions in an
1695 area that is very important. I would like to call on my

1696 expert to respond to you.

1697 Mr. COLLINS. Let me try.

1698 The limits for kidney damage, the limit that was based
1699 the potential for kidney damage, is for low-enriched
1700 uranium. It is based on a quantity of heavy metals in the
1701 kidney.

1702 Nuclear Fuel Services, on the other hand, processes high
1703 enriched uranium, where our limits, the NRC's limits, then
1704 are based on the radioactivity present.

1705 So, for the materials that are being processed now, the
1706 limits are very, very conservative. It will keep workers'
1707 intakes of heavy metals well below the levels that we would
1708 be talking about for low-enriched material. So, the
1709 standards are based on radioactivity now, which presents a
1710 much lower intake than if the standards were based on the
1711 chemical damage.

1712 Mr. MARKEY. So why are these workers still complaining,
1713 then, Mr. Collins?

1714 Mr. COLLINS. I can't speculate as to why they might be
1715 complaining.

1716 Mr. MARKEY. You don't have communication with them at
1717 all?

1718 Mr. COLLINS. We understand what their concerns are. We
1719 understand that in the general population people have
1720 similar concerns.

1721 Mr. MARKEY. You think it is paranoia, then?

1722 Mr. COLLINS. No, sir. We take this seriously.

1723 Mr. MARKEY. You are saying they might have additiona.

1724 complaints, but there is no basis for it?

1725 Mr. COLLINS. No. I am saying in order to reach

1726 conclusions, we need to get experts in who need to look at

1727 the actual exposures and the actual physical condition of

1728 these individuals; run the tests.

1729 Mr. MARKEY. Will you get the workers as quick an answ

1730 as possible?

1731 Mr. COLLINS. Yes, sir.

1732 Mr. ASSELSTINE. Mr. Chairman, you asked what could be

1733 done in the interim. Let me suggest one other thing that I

1734 think that we could do that might provide some additional

1735 assurance to the workers until we can get them a definitive

1736 answer that we are doing everything possible to ensure that

1737 there isn't a serious health consequence from their working

1738 down there.

1739 I think one of the things we can do is get serious abou

1740 requirements, keeping radiation exposures to workers to a

1741 level as low as is reasonably achievable. Whatever the

1742 limits are, that is what our regulations require, which is

1743 basically do as much as you can to reduce radiation

1744 exposures.

1745 That is an area that was highlighted as a weak area in

1746 MFS's performance in the Bechtel review. It is an area that
1747 they have targeted for some attention in their improvement
1748 program. I think that is something we could do in the
1749 interim to help assure workers that we are going to keep
1750 exposures throughout the facility to levels as low as can be
1751 achieved, ~~and~~ that means cleaning up the lunchroom, getting
1752 serious about radiological controls so that people don't
1753 bring contamination out of the work areas; and that means
1754 taking a hard look at the way the process is run and the way
1755 the facility is maintained to get the exposures and
1756 contamination down.

1757 That is something we can do right now and one step that
1758 would be helpful in the interim.

1759 Mr. MARKEY. Let me move to the lunchroom question. The
1760 has been information forthcoming that there has been
1761 radioactive contamination of the lunchroom that these atomic
1762 workers ate in.

1763 How long has there been a problem there, Mr. Chairman?

1764 Mr. ZECH. That problem has, to my knowledge, occurred
1765 some time ago, Mr. Chairman, and contaminated vending
1766 machine--that problem has been resolved. I think it was
1767 several years ago.

1768 Again, I would have to check with my expert on that to se
1769 the exact date.

1770 Mr. MARKEY. Are you saying that there is no longer any

1771 contamination in the lunchroom?

1772 Mr. ZECH. That is my understanding..

1773 Mr. MARKEY. Is that the staff's understanding, as wel

1774 Are you giving total assurances that there is no

1775 contamination?

1776 Mr. ZECH. Let me call on my expert to verify that. I

1777 don't believe there is contamination, but I would ask for

1778 support on that.

1779 Mr. COLLINS. We have focused our effort significantly

1780 over the last several years to assure that NFS has improved

1781 its contamination control program. There are--have been ove

1782 the past--through the many years in the past--occurrences of

1783 low levels of contamination in the lunchrooms, levels above

1784 the licensee's action points; and we have reviewed the

1785 licensee's records for cleaning up these contaminations.

1786 And as part of the NFS performance improvement plan that we

1787 have discussed here today, the licensee has instituted

1788 already some actions with regard to wearing of process

1789 clothing in clean areas. And by the end of this year we

1790 will have eliminated the use of process clothing in clean

1791 areas, including the lunchroom.

1792 That could well be one of the sources for these low leve

1793 of contamination to have been in the lunchrooms. Over the

1794 past two years, there have been significant decreases, since

1795 April of 1985, for example, in the number of instances of

1796 contamination above action points in the lunchrooms, and it
1797 is my understanding, from the last we reviewed the records,
1798 there was less than a handful of instances of such over the
1799 last year or so.
1800 Let me also say--
1801 Mr. MARKEY. Let me get back to you.
1802 You do agree that in the late Seventies parts of the
1803 vending machines in the lunchroom were so contaminated that
1804 they had to be disposed of as radioactive waste?
1805 Mr. COLLINS. We have talked to the people who were--the
1806 licensee, and the licensee has talked to the people who were
1807 involved in these surveys. And, although there are no
1808 specific numbers recorded, it was the understanding at the
1809 time that this was an old machine, and rather than--
1810 Mr. MARKEY. Did they dispose of the machines as
1811 radioactive waste in the late Seventies?
1812 Mr. COLLINS. They took parts of the machines,
1813 particularly the parts where the air was, and took those
1814 parts and disposed of them in a burial drum.
1815 Mr. MARKEY. So they disposed of parts of the vending
1816 machine as radioactive waste?
1817 Mr. COLLINS. Yes, sir.
1818 Mr. MARKEY. So I can understand the present situation,
1819 you are saying right now that there is no radioactive
1820 exposure in the lunchroom?

1821 Mr. COLLINS. I can't say none.

1822 Mr. MARKEY. You cannot say that?

1823 Mr. COLLINS. I can say that the surveys that are being
1824 performed there have identified very few instances of
1825 contamination ~~below~~ above the licensee's action point, and any
1826 exposures that might result from these low levels of
1827 contamination--

1828 Mr. MARKEY. Do you think that a company ought to be abl
1829 to provide an area where people can have lunch without any
1830 danger of radioactive exposure?

1831 Mr. COLLINS. We and the company have agreed that that i:
1832 where they should move to, and that is where the performance
1833 improvement program is leading the company. And the main
1834 source--

1835 Mr. MARKEY. So these workers have a legitimate beef,
1836 then, don't they?

1837 Mr. COLLINS. Their health is not being affected. There
1838 are no limits being exceeded.

1839 Mr. MARKEY. You can say that with no question right now?

1840 Mr. COLLINS. I can say that they are below our standards

1841 Mr. MARKEY. Are you saying that you can scientifically
1842 say that their health is not being affected?

1843 Mr. COLLINS. I am not a physician. I can't make--

1844 Mr. MARKEY. Then don't make that statement. That is the
1845 critical question that we are trying to determine here, and

1846 we don't have that information.

1847 Mr. COLLINS. The situation, based on the licensee

1848 performance improvement program, and our review of it, has

1849 reduced significantly those instances, yes.

1850 Mr. MARKEY. How long will it take before you think you

1851 are going to be able to guarantee a radiation-free lunchroom

1852 for the workers?

1853 Mr. COLLINS. Well, let me say that the assurance is goi

1854 to be dependent upon how well these individuals leaving

1855 contaminated areas survey themselves. Okay? That is a key

1856 aspect, as well as the wearing of process clothing.

1857 The licensee, NFS, has committed to not having process

1858 clothing in lunchrooms by the end of the year, and has

1859 purchased--but not yet on site--more reliable instrumentation

1860 to meet that end.

1861 Mr. MARKEY. So you are saying that the primary

1862 responsibility lies with the workers to protect themselves?

1863 Mr. COLLINS. No, sir. I am saying the primary

1864 responsibility to protect the workers lies with the licensee

1865 management, and they should provide adequate training

1866 facilities, equipment, and procedures to assure that that is

1867 done.

1868 Mr. MARKEY. Well, their track record is abysmal, and as

1869 result it would seem to me there would have to be intense

1870 oversight on the part of you, the Navy, and the commission.

1871 Mr. COLLINS. We are monitoring this.

1872 Mr. MARKEY. To ensure that this deficiency is eradica-

1873 I have one last question--we have a roll call on the

1874 Floor--and that is one that relates to a complaint that has

1875 come from at least one union member, who will testify today,

1876 that the company has harassed him for making complaints to

1877 the NRC and testifying here.

1878 What is the NRC's reaction to that, and what kind of

1879 protections might you be able to build in to make sure that

1880 whistleblower workers can feel completely protected in

1881 coming forth to bring information to the NRC or to the

1882 Congress that might require additional cost to a company?

1883 Mr. ZECH. We don't condone harassment or intimidation o

1884 any kind. I am sure you know that. We also have a system

1885 whereby workers can report to the NRC, and we will, to the

1886 best of our ability, guarantee them that they will remain

1887 anonymous, and we will investigate their charges.

1888 Anything in intimidation or harassment is serious, as fa

1889 as we are concerned, and we don't condone it in any way,

1890 shape or form.

1891 I think that there is no question but that the commissio

1892 has taken a strong stand on that, and I feel personally

1893 committed to ensure that that doesn't take place, to the

1894 best of our ability.

1895 Mr. MARKEY. I want to thank the commission for their

1896 testimony today.

1897 We are going to also hear from other witnesses, includi

1898 union officials.

1899 And it is my understanding that you will allow the NRC

1900 staff to remain behind?

1901 Mr. ZECH. Yes, sir, we certainly will. They will be h

1902 to answer any questions you may have.

1903 Mr. MARKEY. I would like to close with this final poin

1904 I recognize the strategic importance of this plant, as I

1905 know you do, Mr. Chairman--

1906 Mr. ZECH. Yes, sir.

1907 Mr. MARKEY. --Commissioner Carr, but all of us in this

1908 room, we clearly recognize how important this plant is to

1909 us. But there are serious problems at this plant. I think

1910 all of us want this plant to operate, but we want it to

1911 operate safely.

1912 To the extent that there could potentially be an acciden

1913 here, that there could be some deteriorating condition that

1914 does cause serious public health or safety concerns, there

1915 could be a public outcry to close the plant down. I don't

1916 think any of us want to be put in a position where

1917 conditions at this plant are such that we get into a public

1918 debate over whether or not we have to weigh public health

1919 and safety against national security.

1920 We need this plant for our nation's protection. The

1921 submarine carrying nuclear warheads is our greatest
1922 deterrent against Soviet attack. It seems to me it is in
1923 all our interests to make sure that this plant operates
1924 abiding by all regulations we have in the 1980s with regard
1925 to health, safety, or conditions in the environment in the
1926 surrounding area.

1927 To the extent that we can all help to build that into t
1928 working understanding of the plant operators here, we won't
1929 have to reach in another year or two or whenever some major
1930 confrontation that has us debating something which should
1931 never be out on the public tables with the risk that the
1932 disgruntlement, the sense of frustration and betrayal that
1933 our citizens might feel might be something potentially
1934 preyed upon by those who don't have the best interests of
1935 this country at stake.

1936 Let us pay the price it takes for the concern that these
1937 loyal Americans have, and make sure that national security
1938 will not be compromised, at the same time that the health
1939 and safety of their families are properly taken care of.

1940 We appreciate your participation.

1941 We will take a brief recess for about 10 minutes, and at
1942 that point we will take testimony from our second and
1943 concluding panel.

1944 RPTS STEIN

1945 DCMN WEISSMEYER

1946 Mr. MARKEY. We will reconvene the hearing and we will
1947 turn to our panel of representatives from the Oil, Chemical
1948 and atomic workers International Union. We will request
1949 that each of them try to limit their opening statements to
1950 two to three minutes or so, so that we can get the
1951 highlights of each of their testimony, and then we will go
1952 into some extensive questioning which will allow you to
1953 flesh out some of the points which you seek to make.

1954 Let me begin by recognizing first Nolan Hancock, who is
1955 Citizenship-Legislative Director of the Washington
1956 Legislative Office of the Oil, Chemical and Atomic Workers
1957 International Union.

1958 Welcome, Mr. Hancock. Please begin the presentation of
1959 your testimony.

1960

1961 STATEMENTS OF NOLAN W. HANCOCK, CITIZENSHIP-LEGISLATIVE
1962 DIRECTOR, WASHINGTON LEGISLATIVE OFFICE, OIL, CHEMICAL AND
1963 ATOMIC WORKERS INTERNATIONAL UNION, ACCOMPANIED BY LONNIE
1964 TOLLEY, PRESIDENT, LOCAL 3-677; HUBERT (JUNIOR) METCALF,
1965 JR., VICE PRESIDENT OF LOCAL 3-677, MIKE K. HAMPTON,
1966 RADIATION MONITOR AND MEMBER, LOCAL 3-677; AND JOHN
1967 WILLIAMS, DISTRICT DIRECTOR

1968

1969 STATEMENT OF NOLAN W. HANCOCK

1970

1971 Mr. HANCOCK. Thank you, Mr. Chairman. I appreciate ve
1972 much the opportunity to testify here today on behalf of
1973 OCAW. I am the Citizenship-Legislative Director. With me
1974 is Lonnie Tolley, the local union President; Junior Metcalf,
1975 the local union Vice President; Mike Hampton, a union
1976 steward and a health physicist monitor who works at the
1977 Health and Safety Department in Erwin; and John Williams,
1978 the District Director for 10 southern states. He also has
1979 the distinction of being a former employee in that
1980 particular plant.

1981 Our union represents some 110,000 workers nationwide. W
1982 also represent some 10,000 workers that work in the nuclear
1983 industry in 12 states, in 2 different plants. Suffice it to
1984 say, Mr. Chairman, that our members encounter the full range
1985 of occupational health and safety problems existing in the
1986 nuclear industry, and as in all industries where we
1987 represent workers, we take a strong position in support of
1988 the right of workers to work in a safe work place. OCAW has
1989 had the bargaining rights at this particular plant since
1990 1959, and currently we represent some 360 workers at the
1991 Erwin, Tennessee, plant.

1992 The Nuclear Services company used a highly purified 97
1993 percent uranium solution for the production of nuclear fuel,

1994 and during the processes, during the course of the nuclear
1995 fuel production, the workers must work with a highly
1996 purified uranium solution while it is in the form of a gas
1997 and also when it is in both the form of a liquid and a dry
1998 powder form.

1999 For many years our officers and our members and our uni
2000 have tried to improve the health and safety working
2001 conditions at the NFS plants. In April of this year, the
2002 union concluded an 11-month strike at the plant over the
2003 bargaining impasse of health and safety. This facility has
2004 a long history of employee overexposure to radiation. Much
2005 of the radiation overexposure has been internal congestion
2006 of alpha contamination.

2007 A review of some of the exposure records show that many
2008 the overexposures have been for a period of many years.
2009 Some have been very high. What these overexposures show is
2010 a lack of commitment by the company to correct plant
2011 equipment problem areas that continue to cause these
2012 overexposures. The plant has a long history of sloppy plant
2013 cleanup procedures. Safe working conditions at nuclear
2014 plants demand a commitment for good housekeeping.

2015 Mr. Chairman, I worked in a nuclear plant for over 20
2016 years and I have had the opportunity of touring a number of
2017 the nuclear plants in this country. I can tell you that
2018 good housekeeping procedures are a must to keep down the low

2019 radiation dosage that union members receive. Over a period
2020 of my experience, I have seen plants--and I came out of a
2021 plant that in the beginning had very poor sloppy
2022 housekeeping conditions, and we were forced to wear--we wer
2023 forced to wear contaminated work clothing and special work
2024 clothing to work in these areas. In the last few years
2025 those areas have been cleaned to the point now that workers
2026 work in there in their street clothing. I know and I
2027 testify that nuclear plants can be a safe place to work and
2028 they can be clean and they can protect members from adverse
2029 health and safety problems. In all the plants that we
2030 represent, Mr. Chairman, we do not hear any complaints today
2031 about health and safety problems. Only at this one facility
2032 do we hear the problems that you will hear today as the
2033 members of this local testify.

2034 The NRC has been contacted numerous time in the past by
2035 many NFS employees complaining about bad plant conditions.
2036 And the Nuclear Regulatory Agency appears to be lax in their
2037 follow-through of employee complaints. Therefore the NRC
2038 must assume their fair share of the burden of employee
2039 overexposures at the NFS plant. Employees at the plant tell
2040 me they no longer have any confidence in the NRC or its
2041 ability to force the company to comply with health and
2042 safety regulations. Had they had confidence in the NRC, we
2043 would not be here today, Mr. Chairman. At this hearing you

2044 will hear testimony from a health and safety monitor at the
2045 plant, and we have enclosed statements given us by other
2046 health and safety monitors belying the company's contention
2047 that they have an adequate health and safety department for
2048 the protection of workers at the NFS.

2049 I will also be turning in to you approximately 30
2050 statements from individual members who work in that plant
2051 there who want to be heard about the issue of health and
2052 safety. Included in these statements is a lengthy statement
2053 by our health and safety physican, Dr. Ken Miller, who is an
2054 industrial health specialist. His statement is also
2055 included in some of those that I turned in this morning.
2056 The health and safety monitors will be the first to
2057 criticize the effectiveness of their own health and safety
2058 program. These health and safety personnel have a great
2059 desire to do a good job in protecting plant workers, but
2060 they are frustrated by management directives, lack of
2061 management support and good procedures and constant
2062 equipment failure.

2063 Employees are required to check hands for contamination
2064 equipment that is either already contaminated or does
2065 not work. Employees continuously explain that radiation
2066 monitors for checking employees' hands do not work properly.

2067 We are not here today to criticize the health and safety
2068 of any other plant across the country, nor are we here today

2069 calling for the shutdown of the NFS Erwin for their failure
2070 to properly protect the workers who work daily in their
2071 plant. We are here trying to correct the injustice of the
2072 ongoing health and safety problems that exist at the NFS
2073 plant.

2074 We are calling for the right of the employees at NFS to
2075 able to work in a safe and healthy work place. We are
2076 requesting the NRC to enforce its health and safety
2077 regulations at NFS as a condition of its licensing
2078 authority. There is no excuse for the long-term exposure to
2079 radiation that many employees have suffered. You will hear
2080 from employees on the current status of the NFS health and
2081 safety program.

2082 I thank you and would be happy to answer any questions.

2083 Mr. MARKEY. Thank you very much. Thank you for bringing
2084 this issue to the attention of the subcommittee

2085 [The statement of Mr. Hancock follows:]

2086

2087 ********** INSERT 1C-1 **********

2088 Mr. MARKEY. Our next witness is Mr. Tolley, the Presi
2089 of Local 3677. Mr. Tolley, we would ask that perhaps if yo
2090 could summarize in two to three minutes.
2091
2092 STATEMENT OF LONNIE TOLLEY
2093
2094 Mr. TOLLEY. Mr. Chairman, I too would like to thank y
2095 for the opportunity to come here today and testify. I have
2096 been an employee of the NFS for 21 years. I have been
2097 President of the local 14 years. It is really unfortunate
2098 for us to be here today. We wish that things was not--that
2099 it was good in the plant so we wouldn't have to come here
2100 and testify. We are here because we are concerned about the
2101 health and safety problems inside the plant and what is
2102 going to happen to the workers out there.
2103 Mr. MARKEY. Can you give us a little sense of what you
2104 perception is?
2105 Mr. TOLLEY. We went on strike on May 15, 1985. We wen
2106 on strike for health and safety reasons out there. After an
2107 11-month strike where we were striking trying to hold on to
2108 what health and safety we had, after an 11-month strike we
2109 retained the right to refuse to work in an area that we felt
2110 was unsafe but gave up the right--each week we would meet
2111 with the company to discuss health and safety problems.
2112 The health and safety committee of the union and the

2113 company health and safety committee would meet once a week
2114 for two hours to go over health and safety problems we migh
2115 have. The company took this right away. Now we meet once a
2116 month. We have only had two meetings since we went back to
2117 work because they don't have time to meet.

2118 The company is taking a position that health and safety
2119 a low priority in the plant. Production, we got behind 11
2120 months as far as supplying fuel, and right now it seems that
2121 is all they are interested in is trying to get caught up.
2122 We have many workers in the plant on disability. The
2123 company--we have a clause in our contract that if people
2124 become disabled that they can draw 60 percent of their
2125 wages.

2126 Prior to the strike in 1985, the company left them alon
2127 We didn't have many problems with them. But since we came
2128 back off strike, they are harassing these people, trying to
2129 rehabilitate them and force them out to work in service
2130 stations or low-paying jobs. We heard comments what is going
2131 to happen if they shut down the plant and who is going to
2132 pay for decommission of the plant. We are concerned about
2133 our people with disabilities, and there is no way to cure
2134 them.

2135 The company don't want to accept the responsibility of t
2136 people they burn out, the people suffering from
2137 disabilities. If they don't take care of our people now,

2138 what are they going to do about the plant as far as its
2139 condition there?
2140 [The statement of Mr. Tolley follows:]
2141
2142 ********** INSERT 1C-2 ********

2143 Mr. MARKEY. Thank you The subcommittee shares your
2144 concern.about the resources available for decommissioning
2145 and taking care of employees of the plant. We will have
2146 time for questions and answers.

2147 Mr. MARKEY. We turn next to Hubert Metcalf, Jr., the V
2148 President of Local 3-677. If you could kind of highlight
2149 the points you want to make.
2150 Mr. METCALF. Okay, Mr. Chairman.
2151
2152 STATEMENT OF HUBERT METCALF, JR.
2153
2154 Mr. METCALF. As Mr. Tolley said, ware happy to be here
2155 today to reflect our views at this hearing. We wish that we
2156 could have come back during the strike to reflect our views;
2157 I think we could have done more good. I have been employed
2158 at the Nuclear Fuel Services for 23 years. My job title is
2159 Production Operator. I am Vice President of Local 3-677 of
2160 the Oil, Chemical and Atomic Workers International Union.
2161 I would like to say if we get into any classified
2162 information that we do not intend to--if it slips out, it is
2163 just a mistake. We have asked the NRC back last July to
2164 have the company to train us on classified information. We
2165 have never been told in this facility what classified
2166 information is or nothing to reflect classified information.
2167 Mr. MARKEY. You are saying that you don't have any
2168 guidelines on what is classified and what is not?
2169 Mr. METCALF. No, sir. There is no guidelines in that
2170 plant what is classified and what isn't, to production
2171 people, to bargain unit people. Now, the company does have

2172 a program where management people will run stuff that is
2173 released to the bulletin boards and stuff like that where it
2174 is to be posted for people to read. They do have people
2175 what they call declassifiers, or something of that nature.
2176 They work on stuff that goes maybe on bulletin boards where
2177 uncleared people would have access to it. But as far as
2178 telling the bargaining unit or the cleared people in that
2179 plant what is classified and what isn't, we have never been
2180 told, and the NRC is well aware of this.
2181 Mr. MARKEY. That is pretty outrageous.
2182 Mr. METCALF. That is a fact.
2183 [The statement of Mr. Metcalf follows:]
2184
2185 ********** INSERT 1C-3 **********

2186 Mr. MARKEY. Thank you, Mr. Metcalf. We we will move to
2187 Mike Hampton, who is a radiation monitor and a member of
2188 Local 3-677.

2189 Mr. MARKEY. Give us your brief overview of the plant a
2190 the problems you see there.
2191
2192 STATEMENT MIKE K. HAMPTON
2193
2194 Mr. HAMPTON. Thank you for allowing us to speak to you
2195 about the problems at NFS. Since we have come back from our
2196 strike, I have found that we are being punished for our role
2197 in telling people what is going on in the plant. As far as
2198 the NRC is concerned, they are aware of the problems at NFS.
2199 One individual commented that they did not think there was
2200 many problems as far as contamination in the lunchroom.
2201 There is problems as far as 1969, 25,000--
2202 Mr. MARKEY. 1969?
2203 Mr. HAMPTON. 1969, in a letter from Gore, Senior, to a
2204 radiation monitor in reference to contamination in the
2205 lunchrooms and on the incident--
2206 Mr. MARKEY. Albert Gore, Senior?
2207 Mr. HAMPTON. Yes, 425, vending machines in the lunchro
2208 We were in a full-phase respirator while we decontaminated
2209 the machines.

2210 RPTS STEIN

2211 DCMN DANIELS

2212 They say it is carried by employees. That is not true

2213 show large levels of contamination is in the ventilation

2214 system. That is where the contamination in the new lunch

2215 room is being brought in from. If you go to Erwin,

2216 Tennessee, I will show you contamination in the lunch room.

2217 We have problems--when we came back to work, we were be

2218 punished by management. We have been put on strict time

2219 limits where they tell us to do our job in an unreasonable

2220 amount of time and if we don't do the job in the amount of

2221 time they tell us to do it, they are taking disciplinary

2222 action against us.

2223 They know if we have to run to get back we don't have t

2224 to see any of the problems in the plant involving health and

2225 safety.

2226 Talking about allegations to the Nuclear Regulatory

2227 Commission, I have received 14 letters from the NRC and I

2228 have a stack of 233 pages here. In my opinion, they make me

2229 out as being an idiot. I give them dates, times; I have

2230 spent many hours on the phone with them.

2231 I give them everything they asked about as far as probl

2232 at NFS and they have done little to correct any of these

2233 problems.

2234 We are trying to do our job as radiation monitors, but

2235 don't have much time to do our jobs because we are running.
2236 At the moment, I am ashamed to be a radiation monitor,
2237 because I am not a radiation monitor. I am trying to keep
2238 my job at the plant. We have severe problems with spills
2239 occurring now.

2240 One spill was noticed July 1986 and it was fixed after
2241 August 1986. I have been told by the NRC personnel that we
2242 are guinea pigs and we are pioneers in this industry for the
2243 simple fact that we deal with high, enriched uranium and
2244 that only studies done on these people as far as uranium
2245 workers are low levels.

2246 That is probably all I want to say. Thank you, Mr.
2247 Chairman.

2248 Mr. MARKEY. Thank you very much.

2249 [The statement of Mr. Hampton follows:]

2250

2251 ********** INSERT 1d-1 *********

2252 Mr. MARKEY. Mr. Williams, would you like to add
2253 anything?
2254
2255 STATEMENT OF JOHN WILLIAMS
2256
2257 Mr. WILLIAMS. I would like to add a couple of comments
2258 Mr. Chairman.
2259 I have been involved with this plant for 28 years. I w
2260 to work there in 1959 as a chemical operator. I worked
2261 there 13-1/3 and I was also president of the local, but I
2262 have been involved as the international representative and a
2263 district director since.
2264 I am coordinator of the Atomic Energy Council for all o:
2265 our plants throughout the United States. Our experience
2266 with NRC is, NRC is a arm of management. They are not
2267 out--we go to them, and that is why we are here.
2268 We have had to come here several other times on NRC, and
2269 we go to them and try to get something done, and as the
2270 chairman said this morning, they are looking, but that is
2271 all they ever do is look and we get no action out of them.
2272 They are always looking at something; that is the commen
2273 we get. I don't know how long they intend to look before
2274 they do anything.
2275 We went to NRC with the kidney problems and the health a
2276 safety before we went to anybody. They said this morning we

2277 didn't. We did. I was there when we told them about it.
2278 That was before we brought the chart and asked for a
2279 congressional hearing.
2280 Mr. MARKEY. You said you took the information on the
2281 kidney problems to the NRC before you brought them to the
2282 subcommittee?
2283 Mr. WILLIAMS. We talked to them.
2284 Mr. MARKEY. Who did you talk to?
2285 Mr. WILLIAMS. We went to them twice before we asked f
2286 hearing. All the problems--Nolan was there. Lonnie and
2287 Junior were there at the meeting. That was during the
2288 strike--July 1985 and also in August 1985.
2289 Later that year, we came up and met with some of your
2290 people and on the lunch room thing, they knew about the one
2291 vending machine--the whole vending machine had to be buried
2292 right before the strike.
2293 Mr. MARKEY. What was in that vending machine?
2294 Mr. WILLIAMS. Coffee or Cokes. It was highly enriched
2295 uranium contaminating it. Right before the strike, a month
2296 and a half, two months, they opened one of the vending
2297 machines and the dust spilled out on the floor. They had to
2298 decontaminate the whole lunch room. It took two weeks to
2299 get the company to open the rest of them. Then they opened
2300 up and the whole lunch room had to be decontaminated.
2301 Mr. MARKEY. When was that?

2302 Mr. WILLIAMS. Two or three months before we went out
2303 1985 on the strike.
2304 Mr. MARKEY. We are not talking about 1979; we are tall
2305 about vending machines contaminated in 1979 and buried and a
2306 repetition of almost the same problem identified again in
2307 1985?
2308 Mr. WILLIAMS. He was talking about Albert Gore, Senior
2309 I did that. That was AEC at the time. It has been a
2310 continuous problem. There would be times when you get a
2311 plant manager or somebody that you could work with for a
2312 period of time, hat things would clear up a little. Then
2313 that wouldn't last long, and then--and the management that w
2314 got now at the plant, from Charlie Taylor down--I knew
2315 Charlie Taylor in 1959 when he was at the plant. They have
2316 no concern at all. The only thing they want to do is get
2317 the product out and make the money.
2318 Health and safety comes third, fourth--well, it comes l
2319 Everything else comes before health and safety.
2320 Mr. MARKEY. Mr. Tolley?
2321 Mr. TOLLEY. Getting back to the vending machines, the
2322 company and the management they have their own vending
2323 machines, separate from our vending machines. Back prior to
2324 the strike, Bill Manzer, the plant manager at that time, he
2325 agreed to let us bring our own coffee pots into the plant
2326 and we could make our own coffee, but this took profits away

2327 from the vending machines, so when we came back off the
2328 strike, the company would no longer allow us to bring our
2329 own coffee into the plant.

2330 RPTS BOYUM

2331 DCMN SPRADLING

2332 [12:20 p.m.]

2333

2334 They make us use the vending machine. Yet they have t

2335 own coffee machine. They would not use ours. They have

2336 their own. They make their own coffee.

2337 Another thing is the rest rooms out there, they have th

2338 own rest rooms. They don't allow us to use their rest rooms

2339 and they don't use ours. But also in a meeting the plant

2340 manager told us, I was complaining about one area in the

2341 scrap facility that is so contaminated, I was complaining

2342 about that. I asked how he would like to work in there for

2343 eight hours and he told me I wouldn't even walk into it.

2344 There is no way I would work in that facility. I would quit

2345 if I was forced to work into it.

2346 Yet he expects us to go into those areas and to work.

2347 Mr. MARKEY. Let me ask you, your strike is over now, i

2348 it, right?

2349 Ms. TOLLEY. Yes, it is.

2350 Mr. MARKEY. Were any of your people harassed in terms o

2351 your participation in this hearing here today?

2352 Ms. TOLLEY. Yes, I have been--rumors has come back thro

2353 supervisors and so on that if we came up here and testified

2354 that the company was going to--we were going to be fired and

2355 if anything that we was told up here if we--

2356 Mr. MARKEY. Were you told that directly?

2357 Ms. TOLLEY. I was told by the supervisor.

2358 Mr. MARKEY. By a management person?

2359 Ms. TOLLEY. No, I was told by supervisors inside the

2360 plant.

2361 Mr. MARKEY. That is management.

2362 Ms. TOLLEY. Yes. But they wouldn't pinpoint who would

2363 come down.

2364 Mr. MARKEY. You are saying that a management supervisor

2365 told you that someone who was his boss, somebody above him,

2366 was indicating that there would be reprisals taken against

2367 those who participated in this hearing?

2368 Ms. TOLLEY. Yes, this come down through supervisors but

2369 they would not tell us who told them.

2370 I do know Charlie Taylor, the plant manager, told the

2371 operator Gene Rice, he said that he was coming up here to

2372 shut the plant down. If we come up here and testified then

2373 this plan could be shut down and he would be without a job

2374 and he should take over leadership and put a drive on to

2375 stop this investigation.

2376 Mr. MARKEY. Mr. Metcalf, were you threatened? Did you

2377 hear anything?

2378 Mr. METCALF. Yes, sir, I have heard rumors throughout th

2379 plant same as Mr. Tolley has that if we come up here we were

2380 putting our jobs on the line. If there was any way they
2381 could get back at us in the future, that they will. Or that
2382 they got a lifetime to get us and we may shut the plant down
2383 and cost everybody their job.
2384 Mr. MARKEY. Did anybody say that to you directly, Mr.
2385 Metcalf? They said it to Mr. Tolley. Did they say it to
2386 you?
2387 Mr. METCALF. No, sir, not directly.
2388 Mr. MARKEY. Mr. Hampton, did anybody say anything to y
2389 directly?
2390 Mr. HAMPTON. As far as this hearing, I have been told
2391 wouldn't be working at Nuclear Fuel very much longer.
2392 Mr. MARKEY. Who told you that?
2393 Mr. HAMPTON. A supervisor. The supervisor told me I
2394 could not trade days off with another employee for the
2395 simple fact that I was going to testify here, that I have
2396 been talking to the NRC, that I have been talking to
2397 operators about health and safety problems in production,
2398 stirring up problems with the operators.
2399 Mr. MARKEY. Why don't they want you talking?
2400 Mr. HAMPTON. I reckon they don't want anybody to know
2401 what is going on in the health and safety of Nuclear Fuel
2402 because it is apparent the NRC wasn't going to tell nobody
2403 about it.
2404 Mr. MARKEY. How about other people at the plant? Have

2405 they been harassed as well? What is the general sentiment
2406 amongst the workers in terms of the attitude that they, that
2407 management has?
2408 Mr. HAMPTON. They are scared.
2409 Mr. MARKEY. About information that would come out from
2410 the workers about plant operation?
2411 Mr. HAMPTON. Most operators are scared because they th
2412 the plant will be shut down. Management said if we come up
2413 here--they have to keep us from testifying for the simple
2414 fact if we come up here we are trying to shut down the
2415 plant, and they would all lose their jobs.
2416 In the labs I found notes about me and little articles
2417 where I was trying to shut down the plant, and there was
2418 derogatory statements about myself in different parts of the
2419 plant. Even my close friends are starting to get hostile,
2420 before the hearing.
2421 Mr. MARKEY. Why would you people want the plant shut do
2422 so you are all unemployed? Do you want to shut the plant
2423 down?
2424 Mr. METCALF. We don't, sir. No, sir.
2425 Mr. HAMPTON. No.
2426 Mr. TOLLEY. No.
2427 I have been told by the plant manager in many meetings
2428 that, okay, go to NRC. If you go to NRC they are going to
2429 come in and shut the plant down and you people will be out a

2430 job, and where you goin' to find a job, they say. I was
2431 told many times that if we went to NRC and they shut the
2432 plant down, we couldn't find a job.
2433 Also, another thing you got to realize, once you work
2434 nuclear plant for 20 years there is nobody going to hire
2435 you. We was on strike for 11 months, we had--
2436 Mr. MARKEY. Why is no one going to hire you?
2437 Mr. TOLLEY. Because we have been over-exposed, we are
2438 risk to them, there are operations in that area now that
2439 asks on the applications have you ever been exposed, have
2440 you ever worked in a nuclear plant, have you ever been
2441 exposed to radiation. That is on most applications of East
2442 Tennessee now. Everybody is afraid.
2443 Mr. MARKEY. Can we go back over something Mr. Metcalf
2444 said, you piqued my interest, and perhaps some other
2445 panelists that testify on this issue, you raised the issue
2446 about classified information that comes into the possession
2447 of workers at the plant.
2448 Mr. METCALF. Yes, sir.
2449 Mr. MARKEY. I don't clearly want you to discuss what th
2450 information is, but I want you to be clear as to what, as to
2451 the contention that you are alleging here which is that the
2452 information is classified but it is not properly protected
2453 in terms of the warnings that are given to workers as to the
2454 sensitivity of that information.

2455 Mr. METCALF. What I was talking about, sir, was that I
2456 have been involved in several meetings with NRC since 1979
2457 and then this time on this strike we were up here in June of
2458 1985, and we were back again in August of 1985, and in
2459 talking to the NRC on allegations and stuff, classified
2460 information may come out. And before I always start a
2461 meeting--and you can ask Admiral Zech because I was the union
2462 representative that he talked to for about 45 minutes in the
2463 plant before he made his tour--always ask everybody, does
2464 everybody got a clearance? And most of the time they say
2465 yes, you know, but if there is nobody there that don't have
2466 a clearance, then I couldn't talk to them because we have
2467 been told if we release classified information in any way we
2468 would be told if we release it up here today, in rumors, not
2469 directly but in rumors, that we could be prosecuted, because
2470 it is, a lot of documents in that plant have at the bottom,
2471 this document must not be copied or it is punishable by
2472 prison.
2473 Mr. MARKEY. So there is a warning?
2474 Mr. METCALF. Yes, sir. On the documents in the plant if
2475 it is classified.
2476 Mr. MARKEY. Right.
2477 Mr. METCALF. But this is, you know, it wasn't only up
2478 here today, it is for all the time. On every document
2479 inside the plant.

2480 Mr. MARKEY. So everybody understands that then.

2481 Mr. METCALF. Yes. But as far as--it is like this pape

2482 here which you know it may have at the bottom it says it may

2483 not be copied. If it is it is punishable by prison or

2484 something like that.

2485 But this is like all procedure operations, standard

2486 operating procedures, SOPs, they will have it on there.

2487 Letter of authorization, LOAs, which gives you, tells you

2488 how to do a job, they will have it on there and stuff like

2489 that.

2490 Mr. MARKEY. Okay.

2491 Mr. METCALF. In regard to--we have a letter here dated

2492 29-86 from the production manager, Eddie Brandon. This was

2493 ten days before Admiral Zech made his tour and they had

2494 something like ten days to prepare for Admiral Zech. It

2495 also dated September 18, which is today, it gives the senior

2496 manager from Capitol, October 8, Dr. Grace, and a Mr. Roe,

2497 senior NRC manager.

2498 It goes on to list approximately 20 plant deficiencies a

2499 it says we have got to get our facilities in perfect

2500 condition for these visits. As a matter of fact,

2501 Congressman Markey, you are scheduled on here but they don't

2502 have a date. I don't know whether you plan on visiting the

2503 plant or not.

2504 It says some work orders have been written, many will

2505 follow. Frequent tours will be conducted to identify
2506 additional items. Please help us to identify and correct
2507 plant deficiencies.
2508 This is to night shift superintendent, building manage:
2509 stuff like that from the production manager. He says our
2510 corporate management is committed to creating a situation
2511 whereby all laid-off employees will be recalled into the
2512 yard crew if an agreement can be reached with OCAW. This
2513 represents a substantial commitment to keep our facilities
2514 ship shape. Attached are typical areas needing corrective
2515 action. Please check inside and outside our plant
2516 facilities that other items may be corrected. Please have
2517 deficiencies corrected or if within your area--
2518 [The document being referred to follows:]
2519
2520 ********* COMMITTEE INSERT ********

2521 Mr. MARKEY. Okay, let me ask you, Mr. Metcalf--

2522 Mr. METCALF. It goes on to list about 20 of these.

2523 Mr. MARKEY. I understand.

2524 Let me ask you, have conditions in your opinion changed
2525 the plant over the past year or since the conclusion of the
2526 strike. Do you think things are better or do you think this
2527 is just a superficial change in order to deal with the
2528 visiting dignitaries, but that the underlying problems are
2529 still there and that we really are not much closer to a
2530 resolution of these issues?

2531 Mr. METCALF. No, sir, sadly to say since we returned fr
2532 strike conditions have gotten worse in that plant.

2533 Mr. MARKEY. Conditions have gotten worse.

2534 Mr. METCALF. They have gotten worse.

2535 Mr. MARKEY. How have they gotten worse?

2536 Mr. METCALF. They have gotten worse. Admiral Zech aske
2537 me the same question in my talk with him. When I came back
2538 off strike I had run a job down there for 15 years and I had
2539 never been required to wear a respirator doing that job. I
2540 cannot tell you the job because it is classified. I cannot
2541 even tell you the job title because it is classified. If I
2542 told you the job title that would tell you the description
2543 of the job, and that is the reason.

2544 But in 15 years of me doing that job, I had never been
2545 required to wear a respirator to do that job. But when we

2546 came back off of strike, evidently some salaried personnel
2547 performing those jobs while we were on strike had gotten
2548 contaminated and had some high urine counts and therefore we
2549 were told to put respirators on while we were doing these
2550 jobs.

2551 But I felt like that it was a way to punish the people
2552 being on strike for 10.5 months, say, hey, get in there and
2553 wear a respirator while you are doing this job because now
2554 you have to do it. I complained to the NRC.

2555 Mr. MARKEY. That seems contradictory to me, maybe I am
2556 confused. That would seem to indicate a concern for your
2557 health that you are forced to make a respirator.

2558 Mr. METCALF. Why did I go for 15 years without having t
2559 wear one?

2560 Mr. MARKEY. You understand my point for 15 years maybe
2561 you needed it, now they are giving you one and now you are
2562 complaining, I am trying to--you just think it is harassment?
2563 I am trying to--

2564 Mr. METCALF. It is directly a harassment. I had done
2565 this job for 15 years before the strike and never wore a
2566 respirator at this job. We didn't even have ventilation on
2567 the boxes until we went on strike.

2568 Mr. MARKEY. So you are saying there are one of two
2569 things, for 15 years you have been endangered in a serious
2570 fashion, or all of a sudden they have decided to harass you

2571 because otherwise for 15 years you have gone from having
2572 almost no protection to now being encased in a respirator.
2573 Mr. METCALF. That is my point.
2574 Mr. MARKEY. Okay.
2575 Mr. Tolley.
2576 Mr. TOLLEY. Since we came back off strike you know the
2577 monitors might go into this further. I can understand why
2578 that NRC can say they have seen some improvement as far as
2579 results up there. But you got to understand, the way that
2580 they smear for contamination inside that plant. They don't
2581 smear where the contamination is at. They have been told if
2582 they walk by and see a puddle on the floor, you don't smear
2583 those areas. They are told before they leave the office in
2584 what areas to smear. They may go into production areas and
2585 smear in the offices where there is no contamination.
2586 But they don't--never smear where it has, contamination
2587 at.
2588 Also, the monitor system has been changed since we come
2589 back off strike. They have changed it. It is not the same
2590 as it was before we went on strike.
2591 Another thing is management does all the calibration to
2592 their monitoring equipment. Our people, we have tried for
2593 years to get some of our people into the position to
2594 where--we do have people qualified to do this--but they refuse
2595 to put our people into the position where they may be

2596 calibrating or can recheck these monitors to see if they a:
2597 reading correctly.
2598 Another thing that we are concerned about is as far a:
2599 contamination in the lunch rooms, the equipment that we
2600 check ourselves before we go to the lunch room, it don't
2601 work properly. Sometimes it don't work at all. But we hav
2602 been instructed to go through the motions because they have
2603 cameras to where NRC I guess they review these, we have to
2604 show we check ourselves before we go to the lunch rooms.
2605 But the instruments don't work.
2606 Mr. METCALF. Mr. Markey, can I relate to that.
2607 Mr. MARKEY. Mr. Metcalf.
2608 Mr. METCALF. I don't have the date but I brought this
2609 the attention of Inspector Lee which is, he is the resident
2610 inspector, Tom Lee, I brought this to his attention. I
2611 don't have the date on it but I told him I said Mr. Lee, you
2612 know that we are going through the motions of checking our
2613 hands, checking our coveralls, checking our feet, before we
2614 enter the locker rooms or the lunch rooms. He said, I know
2615 it, and if they don't shape up they are going to get
2616 themselves cited for it.
2617 Nothing has been done about this.
2618 They put these video cameras on and I think I have
2619 documentation to prove the fact that the NRC told the
2620 company to put video cameras on these material access areas

2621 which is a door coming out of a material area.

2622 It is where you go to the hand monitors, check your ha

2623 and coveralls and things. They put a video camera. But

2624 what it shows the NRC when they come in is a person going

2625 up, checking his hands, checking his coveralls, checking his

2626 feet and exiting away. What it don't show is that monitor

2627 is not functioning. That monitor doesn't work. It is

2628 running off the scale. We have what they call SOP on

2629 contamination control. It says that if you approach that

2630 monitor and it is on Scale 1 you may check yourself if it is

2631 on Scale 2 you proceed to the next nearest monitor and

2632 report it. Report that monitor that is out of whack.

2633 Mr. MARKEY. Let me ask Mr. Hampton, you made an earlie

2634 allegation that some NRC official made a comment to you that

2635 workers at the plant are guinea pigs.

2636 Mr. HAMPTON. Yes.

2637 Mr. MARKEY. Who made that comment, statement to you?

2638 Mr. HAMPTON. An allegation specialist investigator out

2639 Region 2 in Atlanta.

2640 Mr. MARKEY. Who was that?

2641 Mr. HAMPTON. Bruno Urich. On the phone. He also made

2642 the statement comment to another union member. It was

2643 during the strike.

2644 Mr. MARKEY. And the point being that--

2645 Mr. HAMPTON. They just don't--they are trying to do wha

2646 they can to keep their employees protected on these matters
2647 of health and safety but there is just not that much known
2648 about high enriched uranium right now and that we are the
2649 pioneers in this area and that they are using us as guinea
2650 pigs to see what will happen to people down the road, we ar
2651 kind of like the model, they are using us.

2652 Mr. MARKEY. So you are stating that even though NRC
2653 testified before Congress today that the workers are not
2654 guinea pigs, that a regional NRC official--

2655 Mr. HAMPTON. Yes.

2656 Mr. MARKEY. --commented to you that in fact the worker
2657 are?

2658 Mr. HAMPTON. Yes.

2659 Mr. MARKEY. Mr. Tolley.

2660 Mr. TOLLEY. I was told, also, that by Mr. Urich, at th
2661 Holiday Inn in Johnson City in the presence of Mr. Gerald
2662 Briggs that we were pioneers, guinea pigs, in the nuclear
2663 field. That we were then complaining about health and
2664 safety as far as--and also about disabilities to the plant,
2665 you know, I have always been told by some NRC people we
2666 shouldn't give up our fight. That we should continue to
2667 fight.

2668 One of these days somebody is going to hear us. I think
2669 that NRC suffers the same thing as we do at Nuclear Fuel, I
2670 think top people over them controls them. I think there is

2671 people within NRC that wants to help us but--

2672 Mr. MARKEY. You are saying the lower officials that h

2673 contact with you, you think they want to help you. You say

2674 it is the upper level officials that block real aggressive

2675 programs to correct these deficiencies.

2676 Mr. TOLLEY. That is my personal opinion. It seems lik

2677 they are being held down. It seems like somebody is

2678 stopping them because we have been promised we are going to

2679 do something in this area.

2680 Mr. MARKEY. Why would somebody want to stop?

2681 Mr. TOLLEY. That I don't know. That I don't know. I

2682 don't know why. I have been told at Nuclear Fuel, I have

2683 been told by the Director of Safety that I could eat this

2684 staff and it wouldn't hurt me.

2685 Mr. MARKEY. Is it that they don't want to spend the

2686 money?

2687 Mr. TOLLEY. I don't know. I have been told by the

2688 Director of Health and Safety and Nuclear Fuel that I could

2689 eat these materials, it would not hurt me. I have been told

2690 I could bring--

2691 Mr. MARKEY. Eat the materials?

2692 Mr. TOLLEY. Yes.

2693 Mr. MARKEY. Okay.

2694 Mr. TOLLEY. I have been told I could drink pure plutoniu

2695 nitrate and it wouldn't hurt me.

2696 Mr. MARKEY. As a joke?

2697 Mr. TOLLEY. No, no, he was serious. This was in a
2698 meeting having to do with a lot of people. Mr. Metcalf was
2699 in this meeting.

2700 Mr. METCALF. Mr. Markey, what Mr. Tolley is referring
2701 is this was some time ago when the plutonium facility was
2702 operating down there and they brought in a new health and
2703 safety director and this was one of his comments in a
2704 meeting in a health and safety meeting that we had that if
2705 you didn't have any breaks in your stomach lining, any
2706 ulcers or anything like that that you could drink pure--or i
2707 your system in any way--that you could drink pure PU nitrate
2708 and it would eventually flush out of your system sooner or
2709 later which I don't know it may be later before it would
2710 happen.

2711 This same director--

2712 Mr. MARKEY. When was this?

2713 Mr. METCALF. Probably late 1960s or early 1970s. This
2714 same--

2715 Mr. MARKEY. Was this a meeting for just you or--

2716 Mr. METCALF. No, for several. The whole bargaining uni

2717 Mr. MARKEY. How many people are you talking about?

2718 Mr. METCALF. Probably at that time 60 69 80 people.

2719 Mr. MARKEY. Sixty to eighty people heard this?

2720 Mr. METCALF. Yes.

2721 Mr. MARKEY. A company officials said this, what was h.
2722 job?
2723 Mr. METCALF. The manager of Health and Safety, and whi
2724 he stayed manager of Health and Safety until we felt like we
2725 got him run off by the NRC.
2726 Mr. MARKEY. When was that?
2727 Mr. METCALF. This past July of 1985 because--
2728 Mr. MARKEY. So the man that made this comment, a decad
2729 or more ago, was still the Director of Health and Safety up
2730 until last year?
2731 Mr. METCALF. True. And the way he got run off, I
2732 personally asked the NRC if they knew what his education was
2733 and they said no. This was in a meeting last July with
2734 myself, Mr. Williams, Mr. Tolley, Mr. Hancock--his degree was
2735 in agriculture.
2736 So after the meeting it went on about less than a month
2737 and while we were on strike, we found out that he had been
2738 replaced but you know who they replaced him with? Bruce
2739 Knight came from West Valley.
2740 Mr. MARKEY. The Director of Health and Safety there.
2741 Mr. TOLLEY. He is now.
2742 Mr. METCALF. And he was at West Valley.
2743 Mr. TOLLEY. We have got serious problems at Nuclear Fuel
2744 concerning health and safety.
2745 Mr. MARKEY. I can understand that.

2746 Mr. TOLLEY. And the company is not willing to try to-
2747 know, I set here and I heard the Admiral say there should b
2748 communication between the union and the company. We should
2749 try to work our differences out. They won't even meet with
2750 us to work them out. They don't have to. You know.
2751 Mr. MARKEY. Let me ask Mr. Williams, you will complete
2752 but is there a corporate representative here of NFS? Is
2753 there anyone from that company here today?
2754 Mr. Williams.
2755 Mr. WILLIAMS. I can understand why they are not here.
2756 But my point is on NRC that I agree with Lonnie that there
2757 is tomes that they have indicated they would like to do
2758 something, but nothing is ever done. But I think NRC has to
2759 be held responsible for not--as much as the company or more
2760 so for the things that is done on there. They cannot say
2761 that they didn't know about this.
2762 This started back in the 1960s with a 40-50 page documen
2763 that we took to AEC at that time and we sent Al Gore senior,
2764 and all--I guess the joint chiefs of, you know, your
2765 Congressmen that was over the AEC, and we must have sent out
2766 100 copies of it. And air sampling all areas.
2767 We worked with thorium, plutonium, and uranium all at th
2768 time.
2769 We had the problem then. We had a health and safety
2770 director, I don't know where he come from. I know when

2771 Eyedecker come there, the one that made the statement, that
2772 you can drink PU or eat it. In fact, the health and safety
2773 director prior to him, I was complaining about 93 percent
2774 enrichment, UH crystals, we was making it, he said if we ate
2775 enough or breathed enough to hurt us, we would not be able
2776 to walk, we would be so heavy.

2777 You know, these are the kind of statements they are mak
2778 in health and safety meetings.

2779 So I think that--we have asked NRC, and the point I am
2780 trying to make, we have no confidence in NRC no more. The
2781 people don't. The workers don't. The community don't. The
2782 union don't. And it is their fault. It is their fault.

2783 You can go and--as I listened to the chairman this morni
2784 they are looking. They are looking. That is all they ever
2785 do is look. I think that is where it has got to come down
2786 to. If they are held responsible for doing something by
2787 someone then we will get something done at this plant.

2788 Mr. MARKEY. Let me ask, what is the NRC reaction to thi
2789 testimony? Is any one of you willing to volunteer to get up
2790 and contradict or confirm the concerns that these workers
2791 have here?

2792 Mr. PARTLO. I am James Partlo, Director of the Division
2793 of Inspection Programs, Office of Inspection and
2794 Enforcement. We have been listening to these. I don't know
2795 that without a lot of time we are prepared to go into each

2796 one of them.

2797 Our people think that it must be a matter of communica

2798 that we are not understanding each other on. The matter of

2799 on the phone, was it pioneer or guinea pig? Those words

2800 have different connotations, at least to me, and so I am

2801 very confused about some of the things we have heard this

2802 morning.

2803 We want--the NRC wants the trust and confidence of the

2804 workers at NFS Erwin. That bothers me very much to hear

2805 that we have apparently, we are perceived to have lost their

2806 confidence. We want to maintain the confidence. We want to

2807 continue hearing from the union about the concerns and try

2808 to show them that we are not always studying things and are

2809 willing to take the steps necessary to have the NFS

2810 management, the responsible people, address the concerns.

2811 Mr. MARKEY. Thank you.

2812 Mr. Tolley.

2813 Mr. TOLLEY. Okay, concerning health and safety maybe I

2814 could talk in a language he might understand.

2815 The building I work in there is not even a facility in

2816 there to wash your hands. If you get contaminated in that

2817 building, there is no way to wash your hands. There is no

2818 restroom facility. For years we have tried to get a place

2819 in there to wash contamination off our hands before you walk

2820 to the lunch room. There is never, NRC never done anything

2821 about that. They never forced the company to put a facility
2822 in there that if you get contamination you can even wash it
2823 off your hands.

2824 Mr. MARKEY. Here is what we are going to do now. We w
2825 have to wrap up the hearing. But I would like to have each
2826 one of you give me one minute summarizing your view of this
2827 plant, the problems, what has to be done. A minute a piece.
2828 No more.

2829 Mr. Tolley.

2830 Mr. TOLLEY. Okay. I would like to say that we are in a
2831 sad situation in Erwin plant. We have people that is spent
2832 their lives there. We have had people now faced with if
2833 these plants shut down there is no way of supporting their
2834 families. We are not here asking you to shut the plant
2835 down, we are asking you people to clean this plant up to
2836 where we can continue to work and make fuel for the Navy.

2837 We just want to have a safe place to work in and we want
2838 some protection if we get burned out and develop illnesses
2839 that we are no longer able to work there is somebody that
2840 will support our families.

2841 Mr. MARKEY. Mr. Metcalf.

2842 Mr. METCALF. Mr. Markey, I feel about the same way Mr.
2843 Tolley does. Myself, for example, I went to work in the
2844 Nuclear Fuel Services when I was 19 years old and I have
2845 been there 23 years and where could I go get a job? If it

2846 shuts down? I am taking a chance by being here today. We
2847 know this. But we cannot continue, either.
2848 Mr. MARKEY. Mr. Hampton.
2849 Mr. HAMPTON. All I can say is I would like to be able
2850 work in a health and safety department where our job is
2851 truly health and safety, and I am hoping you all can do
2852 something to help us there. I would like to say to the NRC,
2853 if they would work as diligently to regulate nuclear fuels
2854 as they have here today to protect them, then maybe we could
2855 all get along together and there would truly be health and
2856 safety at Nuclear Fuel Services in Erwin, Tennessee.
2857 Mr. MARKEY. Mr. Williams.
2858 Mr. WILLIAMS. Well, my comments would be that I feel tl
2859 we are responsible as the representative of the union to the
2860 people in that plant, and we feel that somebody has to put
2861 the pressure on AEC--I mean NRC and see that they do their
2862 job and also pressure management into being responsible
2863 management and dedicated to health and safety and the people
2864 in that plant.
2865 Mr. MARKEY. You want to add one more thing, Mr. Tolley?
2866 Mr. TOLLEY. Yes, I would like to say this. I know from
2867 past experience what is going to happen when we go back in
2868 the plant. They are going to single out probably from five
2869 to ten people and they are going to fire them for health and
2870 safety violations, even though they worked in it for years

2871 and they force them to do it, they will come and they will
2872 fire them and they say the union committee got this done.
2873 They went to NRC, they went to Washington, they complained
2874 because you wasn't doing your job safely so we are taking
2875 disciplinary action. That will happen every time.
2876 Mr. MARKEY. We are going to give you our subcommittee
2877 telephone number, and if that happens, you call us one
2878 minute after that happens.
2879 Mr. TOLLEY. Thank you.
2880 Mr. MARKEY. Mr. Metcalf.
2881 Mr. METCALF. Mr. Markey, this same thing happened on
2882 criticality violations. We turned in about four or five
2883 criticality violations to the NRC, and they came back and
2884 there is no telling how much disciplinary action they have
2885 taken against our people.
2886 Mr. MARKEY. Give us a call this time, all right?
2887 Mr. Hancock.
2888 Mr. HANCOCK. Mr. Markey, a few months ago I made a trip
2889 down to Erwin, Tennessee and I interviewed about 30 people
2890 in the process of two trips to Erwin, Tennessee. I made a
2891 trip down to Erwin, Tennessee last week and interviewed a
2892 number of other people.
2893 We have a serious health and safety problem at that plant
2894 We have medical problems at that plant. Anyway, our doctor
2895 believes we have medical problems at that plant. We have

2896 people who have worked there for many, many years who are
2897 ill. We believe that steps should be taken, studies should
2898 be taken and an overall evaluation ought to be made of those
2899 people.

2900 But the company bears some responsibility to clean that
2901 plant up and make it a safe workplace. I think you
2902 summarized it very well before the last committee, that the
2903 employees at that plant deserve to work in a safe and
2904 healthful workplace. As you said, the Admiral wouldn't
2905 condone that kind of sloppiness and that kind of inferior
2906 health and safety management at any of his nuclear
2907 facilities as far as his submarines are concerned, or the
2908 base. But they are allowing something to go on that must be
2909 corrected, Mr. Markey.

2910 Mr. MARKEY. I thank you very much, gentleman, each of
2911 you, for coming here and testifying. All of your written
2912 comments will be included in the record in their entirety as
2913 you have prepared them.

2914 I know that each of you could speak for much greater
2915 lengths of time, but as you understand, the congressional
2916 schedules are limited.

2917 I want to commend your union for coming before his
2918 subcommittee. You have shown a great deal of patriotism in
2919 the work that you do every day to provide this fuel that
2920 helps to protect this country, but you have also shown today

2921 the highest form of patriotism which is to speak out when
2922 things are wrong, and to urge that they be made right.
2923 I share your concerns about this plant, and I pledge t
2924 you that I am going to do everything in my power, as will
2925 the subcommittee, to work to demand that the things be made
2926 right that are now wrong at this plant.
2927 I thank you for your testimony, and with that, this
2928 hearing is adjourned.
2929 [Whereupon, at 12:55 p.m., the subcommittee was
2930 adjourned.]

9/18/86 Transc File

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

CHAIRMAN

October 14, 1986

The Honorable Edward J. Markey, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

During the September 18 hearing concerning Nuclear Fuel Services, Inc. (NFS), Erwin, Tennessee, you requested that we review the proprietary nature of decommissioning cost information associated with that facility. We have done so. NFS has now informed the Commission that it is withdrawing its request for withholding from public disclosure certain decommissioning cost information previously submitted to the NRC for its Erwin, Tennessee facility.

Accordingly, there are no longer any restrictions on the use of the following documents:

1. Dec. 12, 1983, Status Report of Decommissioning at NFS, T. Lee

2. Undated, NFS Status Briefing Material: Region II's Perception

3. Oct. 9, 1978, Ltr. from W.C. Manser, NFS, to L.C. Rouse, NRC

4. June 23, 1983, Ltr. from J.R. Clark, NFS, to R.G. Page, NRC

The first two documents are already in your possession. We are enclosing copies of the latter two documents for your use. Copies of all four documents are being placed in the Commission's Public Document Room.

Sincerely,

Lando W. Zech Jr.

Lando W. Zech, Jr.

Enclosures:
As stated

cc: Rep. Carlos Moorhead

9/18/86 Transcript File

STATEMENT OF THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

BEFORE THE

SUBCOMMITTEE ON ENERGY CONSERVATION AND POWER

COMMITTEE ON ENERGY AND COMMERCE

UNITED STATES HOUSE OF REPRESENTATIVES

CONCERNING

NRC REGULATION OF NUCLEAR FUEL SERVICES FACILITY
ERWIN, TENNESSEE

PRESENTED BY LANDO W. ZECH, JR., CHAIRMAN

Submitted September 18, 1986

Mr. Chairman, I appreciate the opportunity to testify before this Subcommittee concerning NRC regulation of the Nuclear Fuel Services (NFS) facility in Erwin, Tennessee.

On July 16, 1986, I appeared before you and described the Commission's views on the importance of excellence in the operation and management of nuclear power plants in this country. At that time, I stated that a clear dedication to safety must come from within the top officials of each nuclear utility and that discipline, technical competence, constant vigilance and management involvement are mandatory if we are to succeed in safely providing the benefits of nuclear energy to the American people.

I also described the roles of the NRC Regional Administrators, the key NRC headquarters offices, and the Commission itself to closely monitor and assess each plant's operational safety performance and to initiate necessary actions to demand correction of adverse trends.

In my view, Mr. Chairman, the safe operation of nuclear fuel facilities demands the same degree of excellence in operations and management as is expected at nuclear power plants. The NFS facility is especially important to our country since it represents a key element in the production of nuclear fuel for the reactors in our Navy's nuclear powered ships. I am informed that NFS Erwin has a longstanding reputation of putting out an excellent product.

NFS began processing nuclear materials in 1957. Various isotopes and enrichments of uranium, as well as thorium and plutonium, have been handled in its facilities and equipment. Some of its facilities have been used for many years, and some are no longer in use as processes and practices have changed.

The NRC regulatory program at the Erwin Facility has been extensive, with priority attention given to areas of performance requiring improvement and followup to ensure that improvements are made. As a comparison, the NRC regional inspection effort at Erwin over the past several years has been almost equal to that for a nuclear power station with a single reactor, approximately 4 staff years per year, including an onsite full time Resident Inspector. This level of NRC inspection, which is greater than at any other nuclear fuel facility, has been necessary due to the complex operations involving highly enriched uranium, the labor intensive nature of the production lines, and the multiple performance areas where improvements have been necessary.

Over the past three years, NRC inspections have identified significant deficiencies in NFS operations in the areas of nuclear criticality control, nuclear materials safeguards, and radiological controls. Problems in these areas have resulted in escalated NRC enforcement actions, including four civil penalties and an Order modifying the license. The details are included in our response to your questions. In conjunction with the NRC's most recent escalated enforcement action in May 1985, NFS management committed to an independent review of their nuclear health and safety program and implementation of their own Performance Improvement Program to address NRC concerns as well as weaknesses identified by the independent review. This review was conducted by the Bechtel Corporation in June 1985. Bechtel identified

weaknesses in NFS management involvement in the radiological controls program, deficiencies in staffing levels and qualifications of the radiation protection staff, and the need for increased supervision within the radiation protection organization. In mid-1985, the NFS Performance Improvement Plan was modified to address the findings of the independent review.

As part of its inspection and enforcement program, the NRC has been examining a number of alleged violations of requirements reported to NRC by plant workers, principally during a worker strike in 1985 while the plant was being operated by supervisory employees. Of the total 178 allegations, 164 have been investigated and of these, 38 have been partially or completely substantiated. These matters have resulted in NRC issuing 13 severity level IV or V violations of NRC requirements. The violations found by NRC through followup of these worker allegations do not individually pose a serious threat to public health and safety, but they do deserve-and NRC requires-management's prompt attention to such problems and their underlying causes so that more significant problems are prevented.

Current operations at Erwin are considered to be satisfactory in terms of compliance with NRC requirements and protection of public safety. During the past year, the results of NRC inspections and management reviews have indicated that there has been some improvement in safety performance at NFS. Based upon their initial actions under the Performance Improvement Program, it appears that NFS management is willing to commit the necessary resources and to improve

performance. Nevertheless, much remains to be accomplished in upgrading the quality of operations and radiological controls as well as general work station cleanliness at this important facility.

In coming months, we will be observing the extent to which NFS management is successful in implementing an internal program which both encourages the reporting of legitimate employee safety concerns and demonstrates management's resolve to promptly address safety issues. The Commission acknowledges management's commitment in their performance improvement plan but reserves judgment on effectiveness of the NFS program pending additional NRC staff monitoring and evaluation.

The responsibility for safe nuclear operations at a nuclear fuels facility such as NFS is an important task for the licensee. The Nuclear Regulatory Commission's regulatory programs are intended to ensure that the licensee meets this responsibility.

During a recent visit to the NFS facility, I toured the plant and met with corporate, plant and local union officials. In my judgment, NFS management has established a reasonable plan for addressing their problems. I told the NFS management that I was disappointed with the cleanliness of the facility and I recommended management attention in order to prevent contamination and radiation problems. Also, I suggested to management and to a Union official that they try to work together in a spirit of cooperation that would reflect their excellent product.

Let me close my testimony by assuring you and the members of this Subcommittee that the Commission is fully committed to continued, strong safety oversight at the Erwin facility. Although we believe NRS Erwin management is dedicated to achieving improved performance, we want to see results.

Mr. Chairman, this completes my testimony. I would be happy to address the Subcommittee's questions.

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

September 12, 1986

MEMORANDUM FOR: Chairman Zech
Commissioner Roberts
Commissioner Asselstine
Commissioner Bernthal
Commissioner Carr

FROM: Carlton Kammerer, Director
Office of Congressional Affairs

SUBJECT: BACKGROUND INFORMATION FOR MARKEY SUBCOMMITTEE HEARING ON NFS ERWIN

Attached are NRC Staff-generated questions and answers for the September 18 Markey Subcommittee hearing on NFS Erwin. Biographical sketches of the Members of the Subcommittee are also attached.

Attachments:
As stated

cc: OGC
EDO
SECY

NFS MASTER LIST OF QUESTIONS AND ANSWERS FOR HEARING BACKUP

QUESTION

What is the status of license renewal for NFS?

RESPONSE

On February 14, 1986, the staff transmitted questions and comments related to the renewal application to NFS and requested a response by May 1, 1986. By letter dated April 16, 1986, NFS requested the response date be extended to January 1, 1987. This is because the licensee estimated that a major revision of their renewal application would be needed to address NRC's comments. The major revision of the application is related to making the license more performance-based rather than prescriptive. The license the staff anticipates issuing is a license which will make it clear that the licensee is not only responsible for complying with the letter of regulatory requirements but also to do that which is necessary to go beyond minimal requirements to carry out a more satisfactory operation. The anticipated license will provide NFS more flexibility to accomplish this goal.

QUESTION

Has the current license expired?

RESPONSE

No. Although NFS's current license had an expiration date of February 29, 1984, NFS applied for license renewal 30 days in advance of this date. Accordingly, the license remains in effect pursuant to the timely renewal provisions of the regulations in 10 CFR 70.33(b).

QUESTION

Are any significant changes to the license (requirements) planned?

RESPONSE

The current NFS license is prescriptive, that is, it contains many specific requirements. Besides the commitments contained in the licensee's application which are incorporated as conditions of the license, the staff has imposed 73 additional specific license conditions. This type of regulatory control necessarily imposes essential minimum requirements, not all that is desirable for good practice. The Commission is in the process of reorienting the NFS license to be more performance based rather than prescriptive. Such a license would specify performance criteria and management control systems, leaving specific details to be implemented by licensee procedures. Such a system would require NFS to take more responsibility for the specific implementing details. It makes NFS clearly responsible for operating an environmentally clean and safe plant rather than simply complying with the letter of regulatory requirements. The NRC role is to assure that the licensee has qualified persons, procedures, and equipment to operate the plant safely and to inspect to assure that the plant does in fact operate safely. The NRC has met with NFS to discuss this type of license, and NFS is in the process of revising their license application accordingly.

QUESTION

What have you done to ensure that an accident similar to the Sequoyah Fuels accident does not occur at NFS?

RESPONSE

No new requirements have been added to the NFS license as a result of the Sequoyah Fuels incident. The staff feels the chances of a cylinder rupture occurring at NFS are remote because of the following: (1) UF_6 cylinders are not filled at NFS, (2) cylinders of UF_6 are weighed to the nearest gram

at the Enrichment Plant and check weighed by NFS prior to heating, (3) the NFS vaporization system is equipped with a pressure sensing instrument to measure pressure in a cylinder when the cylinder is being heated. The proper pressure in the cylinder can be monitored constantly by the operators. (4) the vaporization system is equipped with a device to automatically cut off the heat when the cylinder is overheated, and (5) the cylinder being heated is enclosed to contain any release of UF_6.

QUESTION

How many workers have been overexposed by radiation at NFS?

RESPONSE

Based on the results of NRC inspections and information provided to NRC by the licensee, we know of two employees who received exposures in excess of NRC limits, one in 1981 and the other in 1984. The 1981 incident involved the discovery during a routine whole body count that a worker had uranium in his lungs that indicated an estimated exposure of from 3.3 to 7 times the quarterly limited of 520 MPC-hours. Neither NFS nor the NRC were able to establish definitely the source of the uptake of uranium but it was thought to be associated with the startup and testing of a newly installed ventilation system for the general chemistry laboratory.

In the 1984 event, a worker was sprayed with contaminated liquid on October 15, 1984, when he loosened the clamp on a hose that had been interconnected from one component to the drain valve for a second component in order to drain accumulated debris from the first component. Based on the NRC evaluation of exposure data, the worker could have received an exposure of 667 MPC-hours.

QUESTION

At one time the NRC staff was concerned about the offsite impact of a UF_6 release, what has occurred to lessen this concern?

RESPONSE

At one time the exhaust stack at NFS was lower than the hill directly across the street from the plant. Any UF_6 being discharged might have subjected the nearest resident to exposure from UF_6. NFS has since installed a new ventilation system including a new high stack. Any UF_6 released through the stack would have a negligible impact on the public and the environment.

QUESTION

When will you decide on the nature, extent and completion date of NIOSH studies of NFS worker health?

RESPONSE

On April 4, 1986, the NRC initiated preliminary discussions with the National Institute for Occupational Safety and Health (NIOSH) to determine their availability to evaluate allegations of potential health effects of NFS workers from NFS operations. On May 5, 1986, NRC formally requested NIOSH to conduct medical evaluations of NFS workers. On June 6, 1986, NIOSH agreed to provide assistance to the NRC. On July 21, 1986, NRC staff met with NIOSH representatives to provide information NIOSH might need to develop a proposed study for the NRC. Currently we are working with NIOSH and NFS to set up a meeting at the NFS site, so NIOSH can collect information needed to better define the scope and feasibility of studying the health effects to employees. The meeting has been proposed for mid-October. Following this visit, NIOSH is expected to recommend an appropriate study to the NRC. It would be conjecture to indicate the nature, scope and completion date for any potential study at this time.

QUESTION

What is the NRC doing to assure the effects of retention ponds are minimized?

RESPONSE

All process effluent discharges to the ponds ceased in 1980, when a new waste water treatment facility (WWTF) went into operation. Concentrations of radioactive material in the effluents from this WWFT are below federal regulatory limits.

NFS maintains a ground water monitoring program around the ponds. Samples are collected monthly and the resultant data published in annual reports. There is evidence of migration of radionuclides from the ponds into areas around the ponds, but still onsite.

NFS has committed to characterizing the chemical and radiochemical contents of the ponds and then developing a plan regarding remedial actions for the area. The characterization study is under review by the NRC at present is scheduled to begin in the fall - winter of 1986.

We will continue to monitor closely the NFS actions regarding the ponds.

QUESTION

What have you done to assure that workers do not ingest contamination while eating in the NFS lunchroom?

RESPONSE

The NFS program for contamination control in lunchrooms has included:

- surveys by workers exiting controlled areas to detect contamination
- clean up of any contamination found during these exit surveys or donning a clean smock over any contamination found on coveralls
- surveys of lunchrooms to detect and clean up contamination.

These have been instances of contamination above action points in lunchrooms, up to 6000 dpm detected on a vending machine outside the food section.

In a recent inspection we noted inadequate contamination survey by personnel leaving the controlled area. Such inadequate surveys could have resulted in contamintion being spread to lunchrooms. We will continue to monitor the NFS control for contamination control and results.

QUESTION

What have you done to ensure that the contamination on the railroad property adjacent to the site is cleaned up?

RESPONSE

In 1979, contamination in sufficient levels requiring cleanup was discovered on the railroad property adjacent to the site during a special survey conducted by NRC contractors to investigate inventory differences.

The contaminated area followed the former path of Banner Springs Branch. From startup until 1978, process effluents were released into the stream. Released materials were within regulatory limits, however, settling of radioactive contamination resulted in increased concentration along the stream bed. Later,the stream path was diverted to its present position and the former stream bed dried and was covered with vegetation growth.

The NRC required NFS to decontaminate the land based on established criteria regarding external exposure rates and concentrations of radionuclides in soils. This action was initiated in 1980.

One hundred thousand cubic feet of contaminated soil was removed from the railroad property since 1980. However, NRC conducted additional verification surveys and identified several sites within the originally contaminated area which exceed the target criteria. In 1984, NFS removed additional soil and

subsequent verification surveys conducted in 1985, by NRC personnel determined that additional evaluation and remedial action may be necessary. The soil sampling has been completed and analyses to be reviewed by licensee and NRC representatives for proper evaluation of the contaminated area in progress. Currently approximately 1300 square feet of gound are being evaluated.

QUESTION

Does NFS have an adequate Radiological Contingency Plan and procedures to implement the Plan?

RESPONSE

The licnesee's Radiological Contingency Plan (RCP) has been reviewed and approved by the NRC. The licensee's RCP Implementing Procedures are reviewed annually during Region II emergency preparedness inspections. The RCP and its Implementing Procedures have been appraised by Region II inspectors and management as adequate to respond to an emergency.

QUESTION

What assurance do you have that the licensee's staff is capable of competently implementing the provisions of the RCP during an actual emergency?

RESPONSE

During an inspection last month (August 1986), although we did find a violation with regard to conducting RCP training, walk-throughs and interviews were conducted with 6 key members of the licensee's emergency response organization in an effort to gauge the adequacy of the emergency response capability at NFS. On the basis of that sampling , we concluded that the licensee is capable to protecting the public health and safety through the timely implementation of its RCP.

In addition, the licensee is required to annually exercise its emergency response capability, including the involvement of offsite support groups such as hospital, ambulance, and fire department.

QUESTION

If the risk to the public near the NFS site is known to be significantly greater than at other fuel facilities, why hasn't the NRC required the licensee to install sirens around the plant as are required at the nuclear power plants?

RESPONSE

NRC staff previously proposed such requirements for NFS, but the Commission was reluctant to impose such conditions because of then-ongoing rulemaking which would have modified emergency planning requirements for all fuel-cycle facilities. It has been Commission policy to implement new requirements by

rulemaking when such requirements apply to a class of licensees. This approach is preflexable to imposing new requirements on a licensee-specific basis. The Commission therefore recommends the proposed changes at NFS be implemented as part of the rulemaking. The proposed rule has been reevaluated and further modified in light of the January 1986 accident at Kerr-McGee's Sequoyah facility; the Commission is presently reviewing the proposed rule.

QUESTION

Have provisions been made by NFS to notify State and local authorities in the event of an accident?

RESPONSE

Both the Radiological Contingency Plan and implementing procedures define the notifications that NFS is committed to. NRC has inspected the notification procedures and found that NFS has committed to notify the Tennessee Emergency Management Agency and the Unicoi County Sheriff's department within 30 minutes appropriate agencies in a timely manner.

QUESTION

What have you done to ensure that an accident similar to the Sequoyah Fuels accident does not occur at NFS?

RESPONSE

NFS receives UF_6 cylinders of two different sizes both of which are smaller that the cylinder involved in the Sequoyah accident. The first type (smaller by a factor of 500) is used to receive high enriched uranium for

the production of naval fuel. Since the accident at Sequoyah Fuels resulted in a plume of hydroflouric acid upon rupture of the much larger UF_6 cylinder, such a rupture at NFS would have a much smaller impact. When received, the second type contains only residual quantities of UF_6 which could not be removed by heating and therefore overpressurization is not possible. The NRC has reviewed the procedures and controls used by NFS in handling the small cylinders containing high enriched material and determined that they are adequate because cylinders which do not meet weight or pressure requirements are returned to the supplier without being heated. Also, properly filled UF_6 cylinders are heated in an enclosure equipped with approved air ventilation scrubbers to treat the exhaust air for removal of UF_6.

QUESTION

According to your reports to this Committee, concerns raised by NFS employees resulted in your substantiation of allegations concerning conditions adversely affecting the health and safety of employees. Why were these conditions not previously identified by NRC inspection?

RESPONSE

The NRC inspection program is only an audit of licensee performance. The NRC neither has nor desires sufficient resources to independently verify that each licensee is in continuous compliance with all NRC requirements. Licensees are required to establish systems and programs

which will assure compliance. To accomplish this, licensees establish self-audit programs and workers are instructed to report concerns and conditions which could lead to a violation of NRC requirements to their management. During the recent strike, workers brought their concerns directly to the NRC without notifying licensee management. Some of these concerns involved situations from the distant past while others involved recent events.

Even with this situation, some of the violations issued had already been identified by the NRC and some had been identified by the licensee and corrective actions were in progress.

9/18/86 Transcript File

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

September 15, 1986

MEMORANDUM FOR: Chairman Zech
Commissioner Roberts
Commissioner Asselstine
Commissioner Bernthal
Commissioner Carr

FROM: Carlton Kammerer, Director
Office of Congressional Affairs

SUBJECT: ADDITIONAL BACKGROUND INFORMATION FOR MARKEY SUBCOMMITTEE HEARING ON NFS ERWIN

Attached are two additional NRC Staff-generated questions for the September 18, 1986, Markey Subcommittee hearing on NFS Erwin.

Attachment: As stated

cc: EDO
OGC
SECY

QUESTION

What has the agency done to improve the situation at NFS?

ANSWER

The significant problems that we have been discussing and providing information on were identified and addressed primarily as a result of the Region II office recognizing program weaknesses at this facility and focusing additional attention on those problem areas on the part of the resident inspector and the Region based staff.

For example, as a result of indications of problems with controls for airborne uranium, Region II instituted an augmented radiation protection inspection program at this facility during late 1984 and early 1985. This program focused additional intensified effort on operations and procedural controls, control of exposures (including adherence to RWPs and air sampling) and evaluations of exposures and bioassay data. The findings from the augmented inspection program led to the issuance of a $18,750 civil penalty on 5/1/85.

Also, the Regional offices were reorganized in April 1984 providing for better oversight of all fuel facility activities and improved continuity in dealing with identified issues. The newly formed Division of Radiation Safety and Safeguards brought these activities together in one Division in the Region which provided for a stronger focal point in dealing with licensee management and enhanced project coordination. Once identified, these issues were brought to senior level management attention and several high level meetings were held with NFS management. During a 4/9/85 meeting at the site to discuss issues related to the health and safety program, NFS described improvements underway, introduced and committed to their Performance Improvement Program (PIP), and committed to an independent audit of their health and safety program. The audit identified weaknesses in the management of the program, staffing levels and qualifications of the radiation protection staff, leadership within the radiation protection organization, as well as other areas. NFS has implemented a Performance Improvement Program including scheduled dates for completion to address these weaknesses and other deficiencies identified during the NRC Health Physics Appraisal, subsequent inspections and the independent assessment. We have applied significant inspection resources in the past three fiscal years, equivalent to that applied at one unit as were reactor. For fiscal year 1987, we have budgeted twice the safety inspection resources budgeted in fiscal year 1986.

With regard to licensing, we have recognized that a better approach is to develop clear safety program requirements and eliminate the specific, detailed "band-aid" approach. Thus, as facilities and operations develop, NFS will be responsible to modify safety controls to meet these changes.

In many of our meetings with the licensee we have encouraged NFS to go beyond merely working to meet the requirements and to strive for excellence. Most recent examples are the need to improve labor-management relations in the area of properly addressing worker concerns and improved housekeeping and maintenance activities at the site.

This is a brief summary but it does give you some indication of the nature of our effort and involvement in discharging our responsibilities to ensure safe operations at this site.

QUESTION

Do you think that NFS has an adequate radiation safety program and staff to assure protection of the workers and the problem.

ANSWER

The current radiation safety program at NFS is adequate to protect the public health and safety. This is not to say that there are not occasional violations of NRC requirements or that improvements committed to by NFS are complete. NFS is currently controlling exposures to workers and releases to the public to below NRC limits. Actions in progress to improve the radiation safety program are in the Performance Improvement Program (PIP), detailed in documents provided to the Committee.

With regard to the adequacy of the staff to protect the public health and safety, it should be noted that the Bechtel study found weaknesses in the management of the health and safety program and in the numbers and qualifications of the health and safety staff. NFS has made substantial progress in adding strong technical managers to the organization, in adding technical staff and improving the qualifications of the staff. The health and safety staff is strapped to accomplish all the goals necessary to implement the PIP, and NFS is evaluating further augmentation of the staff. We will continue to monitor closely the progress in the PIP and the allocation of NFS resources to provide necessary staff to implement the PIP.

9/13/86 Transcript File

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

November 14, 1986

The Honorable Edward J. Markey, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

As requested in your letter dated October 15, 1986, this letter forwards the Commission's responses to post-hearing questions concerning the Nuclear Fuel Services uranium facility in Erwin, Tennessee. The response to Question 4(B) will be forwarded under separate cover.

Sincerely,

Edward Jay

Carlton Kammerer, Director
Office of Congressional Affairs

Enclosure:
As stated

cc: Rep. Carlos Moorhead

QUESTION 1. By Chairman Zech's own testimony, much remains to be done to upgrade the quality of operations and radiological control, as well as cleanliness, at NFS Erwin. Please describe the NRC's overall plan for such an upgrading, and estimated dates that the NRC will require for completion of major improvements.

ANSWER.

A number of initiatives are in progress at NFS. In the physical security area the licensee has essentially completed the upgrade of the physical security program to include security organization improvements, special training for response personnel, and improved security hardware.

In the area of nuclear criticality safety, the licensee has made improvements as a result of NRC initiatives and enforcement action. Nuclear criticality safety procedures have been revised. Supervisors and operators have been retrained in nuclear criticality safety procedures. Surveillance frequency and number of measurement points have been increased for determination of quantities of special nuclear material in ventilation systems and ducts. The enforcement action taken by NRC resulted in the upgrading of

management controls relating to early management involvement in problem solving and prompt investigations following nuclear safety action levels being exceeded.

An operation safety assessment is planned for the NFS facility during the week of December 8-12, 1986. This will be a multi-disciplined team type assessment. Areas expected to be covered during the assessment include radiological safety, nuclear criticality safety, chemical safety, fire protection, and emergency preparedness. A major objective of this assessment is to evaluate the adequacy of the licensee's safety controls. Information gained through this assessment will be used as a basis for future program development efforts in the area of fuel facility regulations.

The NRC is following closely the NFS Performance Improvement Program (PIP) which addresses comprehensive improvements in the area of radiological control. Monitoring of this PIP includes review of NFS improvements and quarterly meetings between NRC and NFS management to discuss progress. In addition, if there are significant licensee or NRC findings that affect the health and safety area, they are added to the PIP. The dates for completion of action are tracked by Region II. There has been some slippage of completion dates, resulting from the effects of the strike and delays in some major capital purchases and construction of new

facilities. Documents outlining the PIP and showing PIP progress have been sent in previous communications. Enclosed are copies of a recent letter dated October 1, 1986, from NFS giving a PIP update and a copy of a handout from a meeting between NFS and NRC held on October 8, 1986 to discuss the status of this program.

The Commission has directed the staff to advise the Commission of proposed actions and inspection efforts to assess the effectiveness of the NFS Erwin PIP and its ALARA (As Low As Reasonably Achievable) Program.

Enclosures:

1. Ltr dtd 10/1/86 from James R. Clark, NFS, to Philip Stohr, Region II, NRC, describing NFS' Performance Improvement Program

2. A copy of a handout from a meeting between NFS and NRC held on October 8, 1986

Nuclear Fuel Services, Inc. 6000 Executive Boulevard, Suite 600, Rockville, Maryland

(30

October 1, 1986

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Atlanta, Georgia 30323

Attention: Mr. J. Philip Stohr, Director
Division of Radiation Safety and Safeguards

Reference: (1) Docket 70-143; SNM License 124
(2) NFS Report dated March 7, 1986 to NRC Region II Director, Division of Radiation Safety and Safeguards
(3) NFS Report dated May 26, 1986 to NRC Region II Director, Division of Radiation Safety and Safeguards

Gentlemen:

Enclosed is a summary report on the status of NFS' Performance Improvement Program (PIP) as compared to that detailed in NFS' May 28th update (Reference 3). We look forward to discussing the program's progress during your visit to the site on October 8th. At that meeting we will also brief you on the continuing efforts to improve our plant housekeeping, our program for addressing employee concerns, and the results of the 1986 audit.

Sincerely,

James R. Clark
Vice President
Manufacturing & Engineering

JRC:jnw

Enclosure

cc: William T. Crow, Acting Chief
Uranium Fuel Licensing Branch
Division of Fuel Cycle and
Material Safety, NMSS

ENCLOSURE 1

STATUS OF NFS PERFORMANCE IMPROVEMENT PROGRAM

I. RECENT MAJOR EVENTS

The major events influencing the NFS Performance Improvement Program (PIP) since the last status report (May 28, 1986) were:

* The Pond Characterization Study (Phases II and III) was awarded to TLG Engineering, Inc. of Brookfield, Connecticut. Mobilization was completed with the setup on site during the week of September 22. Site work will take about another three months, with the study completion targeted at February 1987.

* NFS contracted for the building to house the Respiratory Protection Facility. The building will be erected in November 1986, at which time electrical and mechanical installation will begin. Full operation of the facility is scheduled for February-March 1987.

* NFS has selected a contractor for final negotiations to provide on-site in-vivo capability. Building 350, which will be completed in October, has been modified to accept the large in-vivo counter. Full on-site capability is expected about six months after contract agreement.

* In September, E&R Technical Associates, Inc. of Oak Ridge, Tennessee, completed an appraisal of the radiological safety program at the Erwin plant. The results of the audit were reported to NFS on September 29 and are under Corporate review for expeditious action.

* In August, NFS established the position of Corporate Supervisor of Planning and Audits to assist in Corporate oversight of capital projects and NRC regulated activities. This position has been filled with a graduate engineer who served in the Nuclear Navy.

II. STATUS

The status of NFS' Performance Improvement Program as of September 30 is summarized below.

A. Outside Assistance

1. H. W. Morton

During May-September 1986, Mr. H. W. Morton, NFS' Health Physics consultant, assisted NFS in:

a. Evaluation of the responses to NFS' Request for Quote to provide on-site in-vivo capability. NFS has selected a contractor and is in final negotiations on the terms and conditions of a contract to provide a state-of-the-art counter, operational services and quality assurance oversight.

b. Design of a radon removal system to assure a low background environment for the in-vivo facility.

c. Preparation of the Quality Assurance Plan for Radiation Safety Measurements which was issued in June 1986.

2. H&R Technical Associates, Inc. (H&R)

In September 1986, H&R completed an appraisal of the radiological safety program at the Erwin plant. The report containing the review team's observations, results and conclusions was delivered to NFS' President on September 29 and is under review for expeditious action. The report states "...it is our general finding that much progress has been made in upgrading and improving the radiological safety program at the Erwin facility since the last appraisal."

B. <u>ALARA Program</u>

NFS has implemented a formal ALARA (As Low As Reasonably Achievable) Program. Progress during this period in developing. NFS' ALARA Program includes:

1. A review of documents in the Human Resources Department for appropriate incorporation of ALARA philosophy. The present company rules were found to be adequate; the personnel job descriptions reviewed by NFS' Salary Committee are now being reviewed for an appropriate statement on ALARA; the personnel performance evaluation forms for salaried personnel require a specific determination by the supervisor that "the incumbent understands, is committed to, and complies with the principles of ALARA;" the NFS News, which is published every two to three months, now routinely carries an item on ALARA progress; and, the early October NFS Supervisory Personnel Newsletter will reiterate the company's commitment to ALARA.

2. The IAC Charter which formalizes the mechanism for operation of the IAC (soon to be called the Safety and Security Committee) has been issued.

3. The extensive upgrade of the radiological safety training program at NFS Erwin was reported in the May 28, 1986 PIP Status Report. The items not then completed were:

a. Upgraded refresher training to be in place to meet the 1987 training requirements. This task focuses on improved video films (both purchased and produced in house). Extensive contacts have been made with suppliers and with other nuclear fuel facilities that utilize classified information. The upgrade plan is in the final stages of evaluation.

b. Supervisory Training - In September, about 150 NFS salaried personnel (most of whom have supervisory

responsibility) completed NFS' comprehensive supervisory training program. This program encompassed five sessions of two to four hours each, included four tests, and was targeted at providing supervisors with training in security, health and safety, and nuclear material control similar to that provided to bargaining unit personnel upon their return to work in April.

4. ALARA goals are in place. Performance against these goals is being traced by the ALARA Coordinator who monthly reports on progress to Plant management, Corporate management and the ALARA coordinators.

5. The "ALARA Progress Report" mentioned above includes graphical comparisons of performance versus goal for the various plant groups.

6. By November 6, 1986, the performance reviews of each Building and Laboratory Manager will include an evaluation of safety and contamination control within his/her operational area.

7. NFS' SOP's are being reviewed by the IAC to assure that reasonable dose reduction opportunities are being included. Oversight of this activity is being conducted by the ALARA Coordinator.

8. In September, H&R Technical Associates, Inc. performed an independent follow-up audit of NFS' radiological protection program at the Erwin plant. The results of the audit were received on September 29 and are under review by Corporate management.

C. <u>Safety Department Organization and Staffing</u>

The numerous additions to the Safety Department staff were discussed in the May 28, 1986 report under "Resource Allocation Improvement." Remaining tasks to complete the Safety Director's Phase I organization are:

* A Radiation Monitor Supervisor is being recruited so that the incumbent can transfer to a Training Department assignment and provide health and safety orientations.

* Final negotiations are proceeding towards on-site in-vivo capability.

* A fourth Respiratory Protection Specialist is being recruited with availability targeted toward the completion of the Respiratory Protection Facility.

* The Computer Records Clerk position is being filled by a temporary contractor until the computer records task can be clarified.

NPS committed to having the Phase II Safety Department organization established by May 1987; i.e., after about a year of normal operation. In fact, the long-term organization is now under Corporate review and provisions have been made in the 1987 Operating Budget for various staffing decisions.

D. HPA Implementation Plan

The yet to be completed tasks from the Health Physics Appraisal (HPA) are discussed below.

1. Eliminate Outside Contamination Areas

The detailed survey necessary to implement the plan for the reduction/elimination of outside contamination areas has been completed. The sealing and blacktopping of areas found to be clean is proceeding toward a major reduction in the control zone area during October. Appropriate changes have been made in NPS-GH-1, Contamination Control Procedure.

A final plan is being drafted, with any necessary paving removals and reroofing scheduled for the Spring 1987. This final plan will be presented to the NRC in November 1986.

2. Eliminate Protective Clothing in Noncontrolled Areas

Phase I of this task has been completed with the elimination of protective clothing in most office areas. Manning has been budgeted to implement the elimination in other noncontrolled areas such as lunchrooms. The critical path is now the availability of new laundry facilities to handle the expanded clothing usage. The design of the new laundry facility has been assigned a high engineering priority (No. 20 of 80 Priority A projects) and is expected to be operational in the Spring 1987.

3. Lower Allowable Contamination Limit

Based upon results of limited field testing, NPS has purchased six alpha contamination monitors (Model CM-9C) from Nuclear Enterprises which will be extensively tested at the major MAA exists. These units have been shown to be readily maintainable and have appropriate alpha background compensation.

4. Containment Dikes

The containment dike project has been subdivided into nine projects and prioritized. Three dike projects (2,500 gallon lab waste tank, Building 130 scrubber, and two laundry waste tanks) have been released to an engineering contractor for expeditious design in 1986.

5. Computerized Exposure Records

NFS' Information Systems Department has been evaluating the appropriate method of upgrading NFS' computer capability to satisfy not only the EPA's computerized exposure records task but also the handling of the classified information included in NFS' nuclear material control tasks (i.e., "Measurements" and the "Reform Amendment"). It is expected that a decision on the size and/or location of equipment will be made in early October. The EPA computerized exposure records program is expected to be in checkout operation in late 1987.

6. Respiratory Program

The funding for the Respiratory Cleaning and Storage Facility has been approved. The building design has been modified to include three offices for Safety Department personnel. The building has been purchased and will be erected by November when the electrical and mechanical installation will begin. Full operation is scheduled for February-March 1987.

7. On-Site In Vivo

NFS is negotiating with Radiation Management Corporation to have RMC provide a state-of-the-art in-vivo counter to be housed in the new Building 350, an operator to perform the counting and maintain the equipment, and off-site quality control certification of the counting results. Negotiations are expected to be completed in early October and the on-site capability to be fully functional in about six months from contract agreement.

III. OTHER RELATED PROJECTS

In addition to the tasks described above, there are several major projects going forward that relate to improvements to radiological safety at the Erwin plant.

A. Pu Building Decommissioning

Personnel are now being assigned to the Pu Building Decommissioning Project for conceptual planning. For 1987, the project anticipates the construction and preparation of a decontamination facility, finalization of all procedures and contingency plans, and equipment procurement.

B. Pond Characterization

In August, NFS awarded TLG Engineering Phases II and III of NFS' Pond Characterization Study. These phases provide for (1) the radiological, chemical and hydrogeological characterization of the ponds and adjacent areas, and (2) evaluation of remedial alternatives through the development

of an engineering feasibility study. A presentation of the planned activities was made by NFS to NRC and State of Tennessee personnel on September 18.

TLG mobilized and moved their activities on site during the week of September 22 and are expected to remain on site into November. Phase III (Feasibility Study) completion is scheduled for February 1987.

C. <u>HEU Scrap Recovery Plant (HESRP)</u>

Based upon the review of the conceptual design of a new HEU Scrap Recovery Plant, NFS has decided to seek assistance from national architectural/engineering firms who have both experience in the nuclear fuel cycle and the present capability to handle classified information. Three such firms have toured the Building 300 Complex and have been briefed by the NFS Engineering Department on the project and the results of engineering to date. A Request for Quote is being developed for submission in early October to provide Preliminary Engineering (Title I Design) of the new HESRP. A detailed material flowsheet has been developed to assist in expediting Preliminary Engineering.

NRC/NFS
INFORMATION EXCHANGE

OCTOBER 8, 1986

NUCLEAR FUEL SERVICES
(ERWIN FACILITY)

ENCLOSURE 2
QUESTION 1

REDUCTION OF OUTSIDE CONTAMINATION CONTROL AREAS

-INITIAL SURVEY COMPLETE

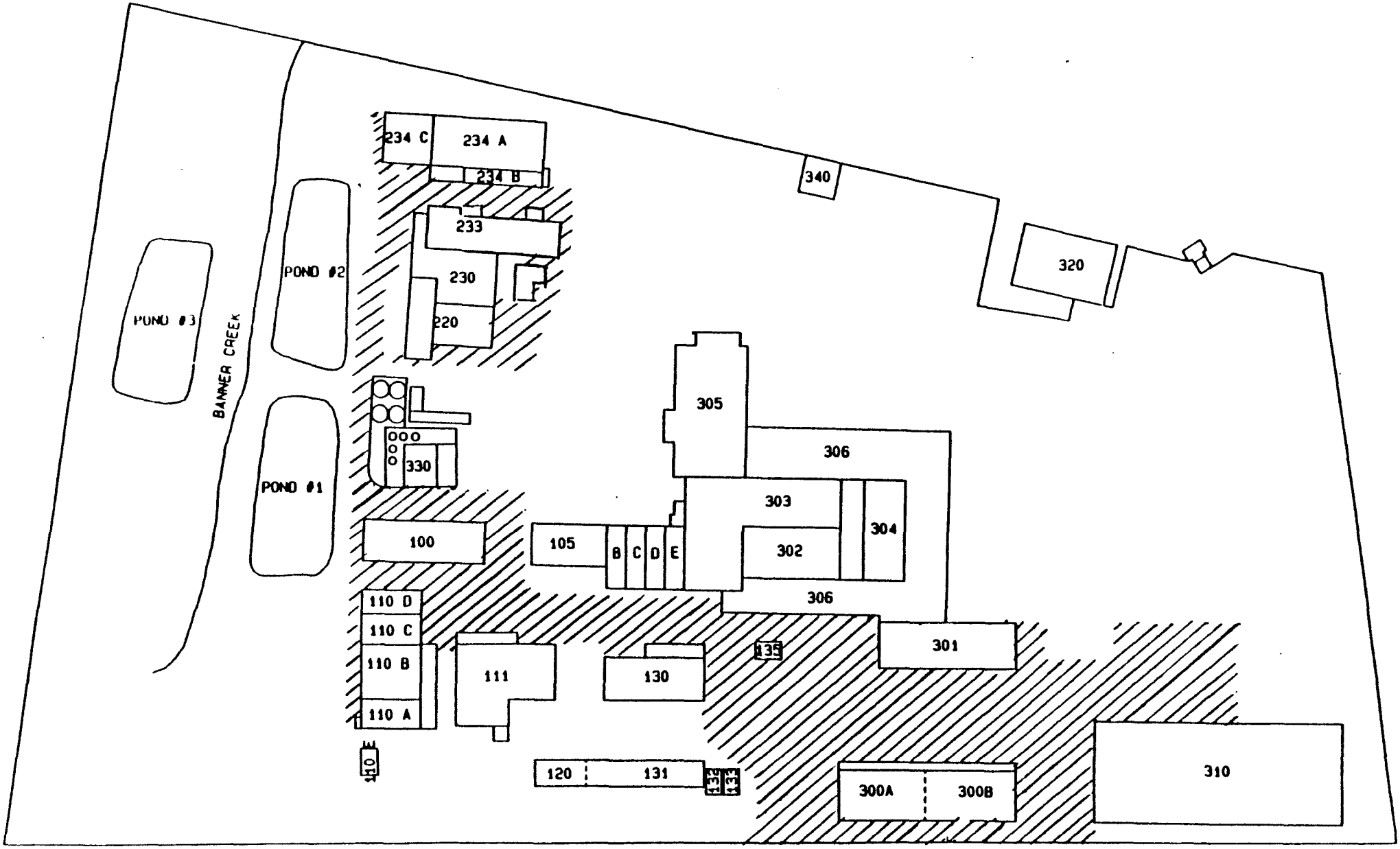
-REDUCTION/ELIMINATION PLAN APPROVED

-FINAL SURVEY/BLACKTOP INITIATED

-NFS-GH-1 REVISED

-FINAL PLAN BEING DRAFTED (NOVEMBER 1986)

-IMPLEMENTATION SCHEDULE SPRING 1987


234 C
234 A
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POND #2
POND #3
BANNER CREEK
POND #1
330
305
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304
302
306
100
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C
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E
110 D
110 C
110 B
110 A
111
130
135
301
110
120
131
132
133
300A
300B
310

LUNCHROOM STATUS

-AIRBORNE CONTAMINATION HISTORY

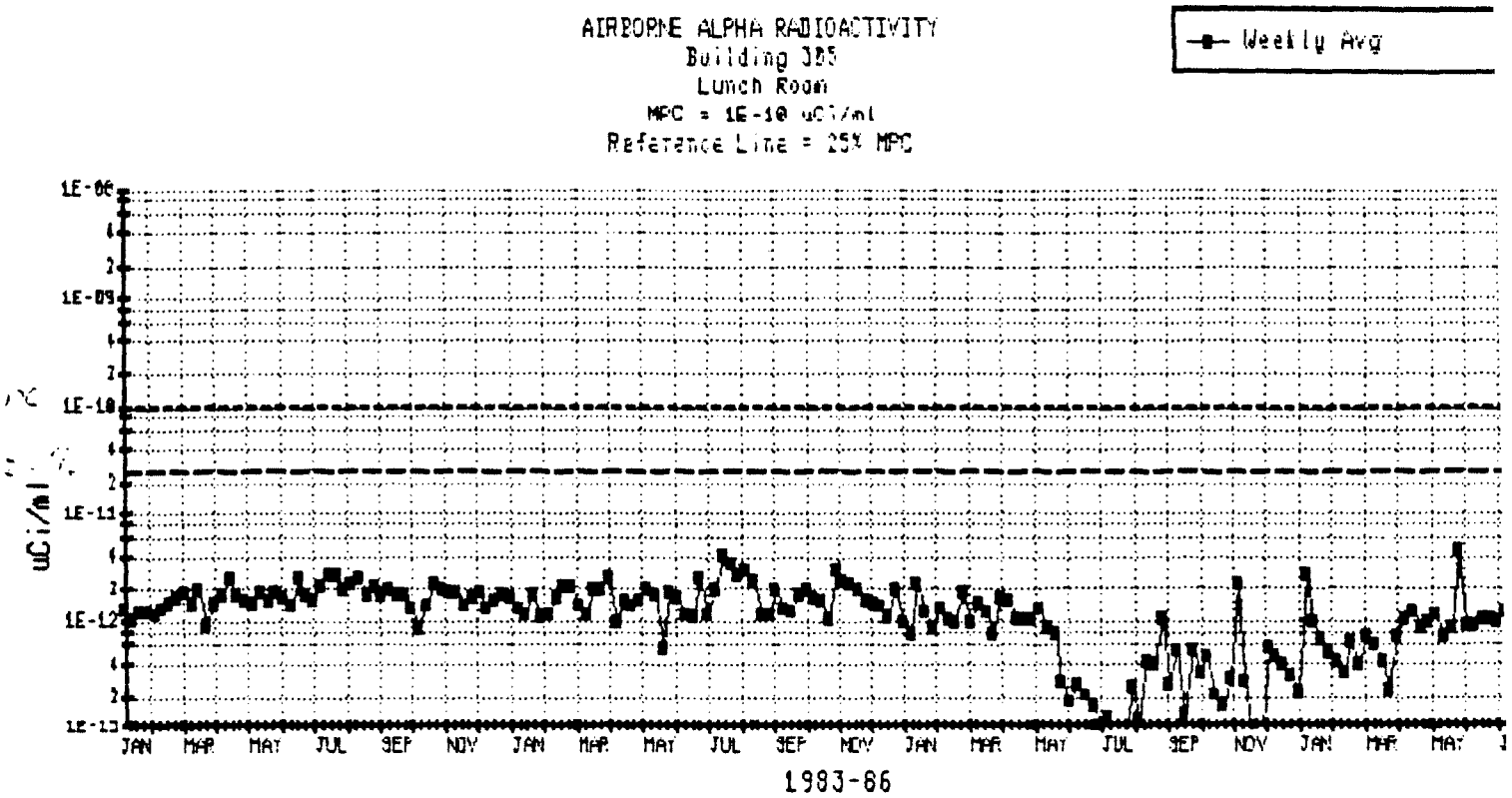
-SMEAR SURVEY HISTORY

ELIMINATION OF PROTECTIVE CLOTHING IN NONCONTROLLED AREAS

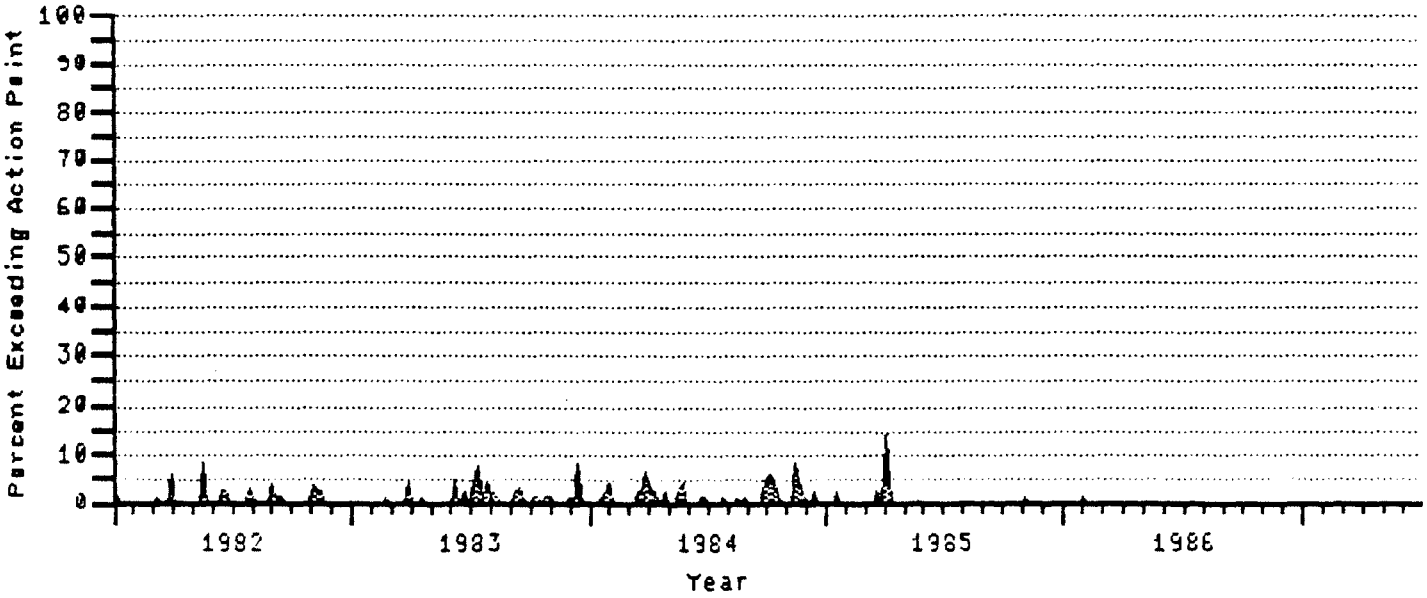
-LUNCHROOM STATUS

-PERSONNEL CONTAMINATION SURVEYS

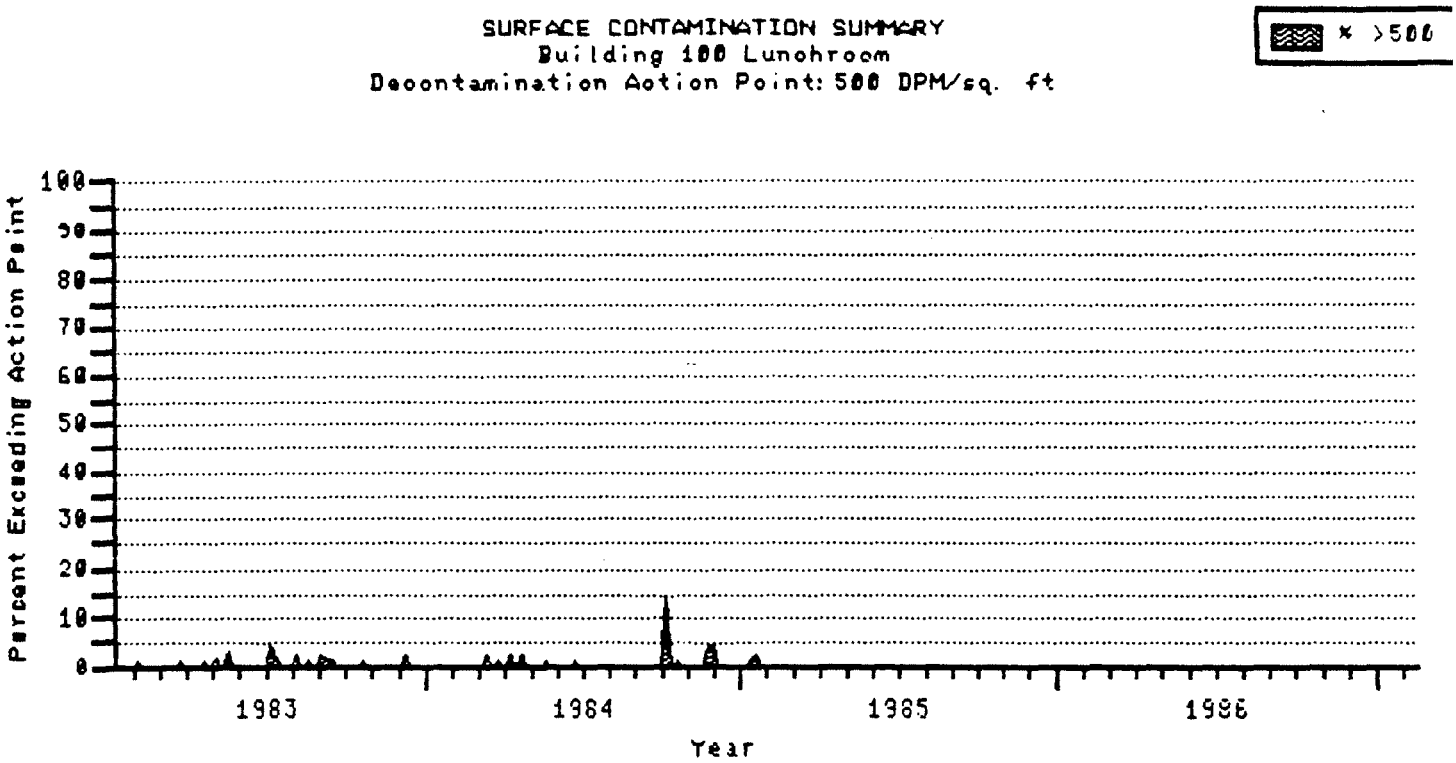
AIRBORNE ALPHA RADIOACTIVITY
Building 385
Lunch Room
MPC = 1E-10 uCi/ml
Reference Line = 25% MPC



SURFACE CONTAMINATION SUMMARY
Building 305 Lunchroom
Decontamination Action Point: 500 DPM/sq. ft



SURFACE CONTAMINATION SUMMARY
Building 100 Lunchroom
Decontamination Action Point: 500 DPM/sq. ft



QUESTION 2. DURING THE HEARING, CHAIRMAN ZECH MENTIONED A LETTER FROM CHARLES TAYLOR, PRESIDENT OF NFS ERWIN, WHICH THE CHAIRMAN HAD RECEIVED A FEW DAYS BEFORE THE HEARING. PLEASE PROVIDE A COPY OF THIS LETTER.

ANSWER.

ENCLOSED IS A COPY OF THE LETTER REQUESTED.

ENCLOSURE:
LTR DTD 9/12/86 FROM CHARLES W. TAYLOR, PRESIDENT, NFS, TO CHAIRMAN LANDO W. ZECH, NRC

MARKEY/NMSS
10/28/86

Nuclear Fuel Services, Inc. 6000 Executive Boulevard, Suite 600, Rockville, Maryl

Charles W. Taylor
President

September 12, 1986

The Honorable Lando W. Zech, Jr.
Chairman
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Chairman Zech:

NFS appreciates your taking the time to tour our Erwin facility and sharing with us your frank observations. I and the senior management staff recognize the need for improvement in the areas you cited and intend to escalate our efforts towards achieving the desired results.

Our goal is to establish the highest degree of cleanliness and professionalism at the Erwin plant, and I can assure you that we will consistently give those objectives our closest attention. In particular, a plan is already being developed to insure the cleanliness of yard and inside facilities.

We were pleased with your comments regarding the excellent quality of our product. Additionally, you were advised of the company's significant improvements in its Safety Department through the Performance Improvement Program and of the formal and informal employee to employer communication methods at the Erwin facility. Regrettably, time did not permit presentations on the company's security and material control program. I am certain you would have been impressed with the results we have achieved in these programs.

Coming off a difficult eleven month strike placed many strains on our ability to complete all the tasks we would like to have accomplished. Extensive retraining efforts of the hourly work force was completed prior to the resumption of production operations. We are pleased that product deliveries are now meeting our customer needs. I can assure you that we shall now turn our attention to accomplishing all necessary improvements in those important areas you noted.

We would like to extend an invitation for you to revisit the plant in the future to view the results of this important effort and look forward to your return. In the interim, we will be working closely with Region II personnel with respect to the ongoing Performance Improvement Program and the new programs described herein.

Sincerely,

Charles W. Taylor

Charles W. Taylor
President

CWT:jnw

cc: Dr. J. Nelson Grace
Regional Administrator, Region II

ENCLOSURE/QUESTION 2

QUESTION 2. During the hearing, Chairman Zech mentioned a letter from Charles Taylor, President of NFS Erwin, which the Chairman had received a few days before the hearing. Please provide a copy of this letter.

ANSWER.

Enclosed is a copy of the letter requested.

Enclosure:
Ltr dtd 9/12/86 from Charles W. Taylor, President, NFS, to Chairman Lando W. Zech, NRC

Nuclear Fuel Services, Inc. 6000 Executive Boulevard, Suite 600, Rockville, Maryla

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Charles W. Taylor
President

September 12, 1986

The Honorable Lando W. Zech, Jr.
Chairman
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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Sincerely,

Charles W. Taylor

Charles W. Taylor
President

CWT:jnw

cc: Dr. J. Nelson Grace
Regional Administrator, Region II

ENCLOSURE/QUESTION 2

QUESTION 3. What is the Commission's position on what involvement the U.S. Navy should have in regard to health and safety issues at the Erwin facility?

ANSWER.

DOE/Naval Reactors (NR) has regulatory responsibility for government owned facilities associated with the Naval Nuclear Propulsion Program. These facilities are operated for DOE/NR by corporate contractors. Nuclear Fuel Services' (NFS) Erwin facility, on the other hand, is owned and operated by Nuclear Fuel Service, Inc., a private enterprise, and as such, the NRC has regulatory responsibility for this facility.

DOE/NR does, however, have oversight responsibility over NFS regarding the production of fuel for the U. S. Navy. In addition, as the Navy is essentially the sole client/customer of NFS, it may be necessary for NFS to renegotiate its financial arrangements with the Navy to provide support for necessary program improvements planned at NFS. It is necessary therefore, that the Navy be kept apprised of the situation at the facility. To the extent that the NFS product supplied to the Navy is important to the national defense and security, it is in the Navy's interest to have the

plant operate safely and efficiently to assure continuity of supply.

Commissioner Asselstine believes that direct involvement by the Navy is needed to help ensure that this facility operates safely. He supports Chairman Zech's efforts to encourage greater Navy involvement and he believes that the Commission should continue these efforts on a more formal basis.

QUESTION 4. During his testimony, Commissioner Asselstine referred to a blue ribbon panel to examine NRC regulations of materials licensees.

A. What is the composition of this Panel?

ANSWER.

The panel is composed of the following persons:

Dr. Clifford V. Smith, Jr., currently Chancellor, University of Wisconsin, Milwaukee. Formerly Chairman of the Department of Nuclear Engineering, Oregon State University. Dr. Smith has also held responsible positions with both the Environmental Protection Agency (EPA) and the Nuclear Regulatory Commission (NRC). In EPA he served in positions up to Regional Administrator. In NRC he served as Director, Division of Fuel Cycle and Material Safety, and Director, Office of Nuclear Material Safety and Safeguards.

Edson G. Case, currently retired. Mr. Case has many years of experience in the Atomic Energy Commission (AEC) and NRC in the regulation of reactors. His last position in the NRC was as Deputy Director, Office of Nuclear Reactor Regulation.

Ralph G. Page, currently retired. Mr. Page has many years of experience in the AEC and the NRC in regulation of non-reactor licensees. His last position in the NRC was as Chief, Uranium Fuel Licensing Branch, Division of Fuel Cycle and Material Safety.

Thomas F. Engelhardt, currently retired. Mr. Engelhardt is an attorney and has many years of experience in the AEC and the NRC. His last position in the NRC was Deputy Director, Office of the Executive Legal Director.

Dr. John M. Googin, currently Senior Staff Consultant, Development Division of the Oak Ridge Y-12 facility. Dr. Googin was the 1982 recipient of the Chemical Engineering Award for Personal Achievement in Chemical Engineering. Dr. Googin has many years of experience in the handling and processing of uranium in many chemical and physical forms.

QUESTION 4. (C) When is the Panel expected to complete its work?

ANSWER.

The panel has completed its work. A report was received by the NRC on October 24, 1986.

QUESTION 5. The Commission made a commitment during the hearing to reexamine the issue of whether amounts in the NFS decommissioning fund and estimated costs of decommissioning should remain proprietary information.

A. What has been the result of the Commission's reexamination?

ANSWER.

The Commission responded to Congressman Markey's request that it reexamine the issue of whether amounts in the NFS decommissioning fund and estimated costs of decommissioning should remain proprietary information in an October 14, 1986, letter from Chairman Lando W. Zech, Jr. to Edward J. Markey, Chairman of the Subcommittee on Energy Conservation and Power. The Commission was able to release the information at issue because NFS, in an October 2, 1986, letter to William T. Crow withdrew its request for withholding under 10 CFR 2.790 of the Commission's regulations. Enclosed is a copy of the NFS letter.

Enclosure:
Ltr dtd 10/2/86 from Neil J. Newman, NFS,
to W. T. Crow, NRC

Nuclear Fuel Services, Inc. 6000 Executive Boulevard, Suite 600, Rockville, Maryland • 2

(301) 77C

October 2, 1986

Mr. W. T. Crow, Acting Chief
Uranium Fuel Licensing Branch
Division of Fuel Cycle and Material
Safety, WMSS
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Crow:

This letter is to confirm our conference call of yesterday with Mr. E. C. Shomaker, Mr. J. R. Clark, you and me concerning the NFS proprietary data regarding decommissioning cost at the NFS Erwin facility contained in NFS letters of October 9, 1978 and of June 23, 1983 and referenced in NFS letter of August 29, 1986. The specific documents are "NFS' Financial Assurance for Decommissioning U-235 Facilities - NFS Erwin (October 9, 1978 and June 23, 1983)" and the bracketed data contained in two NRC Reports ("Status Report - Decommissioning at NFS - Plans/ Requirements/ Recommendations" and "NFS Status Briefing Manual") respectively.

You have informed NFS that the Chairman of the Subcommittee on Energy Conservation and Power of the U.S. House of Representatives has requested that the NRC review the withholding of these documents in order to allow them to be publicly released. Although NFS continues to maintain that the above financial information is Company proprietary information and meets the withholding from public disclosure requirements of 10CFR2.790, the Company informed you that it is willing to withdraw its 10CFR2.790 requests regarding these specific documents as a courtesy to the Subcommittee. This action by NFS is made without prejudice to any future requests for withholding from public disclosure pursuant to NRC regulations of NFS' proprietary financial data, including, but not limited to, decommissioning costs or funding. NFS' agreement to the release of these documents is made therefore upon its understanding that the NRC concurs that NFS has not prejudiced or waived any such past or future rights.

Sincerely,

Neil J. Newman

Neil J. Newman
General Counsel

NJN:dms

cc: Mr. E. C. Shomaker, Esq.

ENCLOSURE/QUESTION 5

QUESTION 5. (B) If the Commission still considers this information proprietary, what is the basis for this position?

ANSWER.

No answer necessary.

QUESTION 6. If the Commission no longer considers material described in Question 5 to be proprietary, please provide the following:

(A) The information on decommissioning cost estimates deleted from "Status Briefing Report: Region II's Perception," prepared during the fall of 1985 and released with Mr. Carlton Kammerer's letter of September 17, 1986, to the Subcommittee.

ANSWER.

This information was enclosed in a letter to the Subcommittee dated October 14, 1986.

Enclosure:

Ltr to the Subcommittee dtd 10/14/86

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

CHAIRMAN

October 14, 1986

The Honorable Edward J. Markey, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

During the September 18 hearing concerning Nuclear Fuel Services, Inc. (NFS), Erwin, Tennessee, you requested that we review the proprietary nature of decommissioning cost information associated with that facility. We have done so. NFS has now informed the Commission that it is withdrawing its request for withholding from public disclosure certain decommissioning cost information previously submitted to the NRC for its Erwin, Tennessee facility.

Accordingly, there are no longer any restrictions on the use of the following documents:

1. Dec. 12, 1983, Status Report of Decommissioning at NFS, T. Lee
2. Undated, NFS Status Briefing Material: Region II's Perception
3. Oct. 9, 1978, Ltr. from W.C. Manser, NFS, to L.C. Rouse, NRC
4. June 23, 1983, Ltr. from J.R. Clark, NFS, to R.G. Page, NRC

The first two documents are already in your possession. We are enclosing copies of the latter two documents for your use. Copies of all four documents are being placed in the Commission's Public Document Room.

Sincerely,

Lando W. Zech, Jr.

Enclosures:
As stated

cc: Rep. Carlos Moorhead

ENCLOSURE/QUESTION 6A

QUESTION 6. (B) The amount of money presently in the NFS decommissioning fund, and the estimated amount for 1988.

ANSWER.

NFS has informed the staff that presently there is $10.5 million in the fund and by 1988 there will be approximately $18 million.

QUESTION 6. (C) Any more recent estimates on the costs of decommissioning the retention ponds, the waste burial pits, and the entire site at NFS Erwin.

ANSWER.

NFS has been requested to reevaluate decommissioning cost and provide this information to the Commission. Receipt of this information is currently scheduled for January 1, 1987.

QUESTION 7. Present plans are for NFS to add money to the decommissioning fund until 1988. What will happen to the fund after 1988?

ANSWER.

NFS will be required to add money to the fund until full decommissioning costs are funded. The funds will continue to be held in the escrow account.

QUESTION 8. What agreements does NFS have with the State of Tennessee for management of waste buried at Erwin? Please provide copies of all such agreements.

ANSWER.

The NRC is not aware of any agreements between NFS and the State of Tennessee regarding this waste.

QUESTION 9. A. If the NFS decommissioning fund proves insufficient to pay for decommissioning, would the NRC attach the assets of Texaco or previous parent companies to fully pay for decommissioning.

B. If the NRC would not attach the assets of Texaco or previous parent companies, what is the basis for such a position?

C. If the NRC would attach the assets of such companies, does it have the statutory authority to do so?

ANSWER.

It is likely that some form of court order would be needed before assets could lawfully be "attached" since the Atomic Energy Act does not, by its terms, establish any security interest for decommissioning funding or give NRC any authority, akin to that normally possessed by courts, to "attach" assets. But if the decommissioning fund proved insufficient, NFS was unable to contribute more, and lack of progress on decommissioning created a potential safety hazard, NRC would

examine all potential sources of funds, including Texaco and previous parent companies, and all potential sources of legal liability, including the Atomic Energy Act and CERCLA (Comprehensive Environmental Response, Compensation and Liability Act). However, maintenance of adequate financial assurance by the licensee itself is the most assured way of meeting the costs of decommissioning under current law. Rulemaking is currently under way on the subject of adequate decommissioning funding. 50 FR 5600 (Feb. 11, 1985).

QUESTION 10. (A) What measures have been taken to stabilize the pile of contaminated dirt on site at NFS Erwin which was removed from railroad property northwest of the site?

ANSWER.

In March 1985, NFS placed six inches of clean fill over the entire pile and stabilized the pile with rye grass. No contaminated soil has been added to the pile since then.

QUESTION 10. (B) What are the plans for ultimate disposition of this dirt?

ANSWER.

A radiological assessment will be necessary to evaluate the ultimate disposition of the soil. If necessary, it will be sent to a licensed burial ground.

QUESTION 11. (A) At the time that NFS turned over responsibility for perpetual care of the waste at West Valley to New York state, how much money was in the company's long term waste management fund?

ANSWER.

The following information was obtained from the New York State Energy Research and Development Authority.

On May 15, 1963, the New York State Energy Research and Development Authority (then Atomic Research and Development) entered into a Waste Storage Agreement with Nuclear Fuel Services, Inc. By the the terms of that agreement, Nuclear Fuel Services, Inc., made payments into a replacement fund and a maintenance fund for the storage of high-level waste at West Valley.

Those funds were consolidated into a restricted fund by New York State in 1982 and amounted to about $5.5 million at the time the Department of Energy assumed control of the West Valley site under the West Valley Demonstration Project. As of March 1986, the fund had grown to about $8.3 million.

Upon transfer of the West Valley solidified high-level waste to final disposal, this fund will be turned over to the Department of Energy.

In addition, at the time that NFS turned over responsibility for perpetual care of the waste at West Valley to New York State, NFS agreed to make payments to or for the account of the New York State Energy Research and Development Administration totaling $19,914,728. See Section 3 of the Settlement Agreement, Stipulation and Order in Civil Action Nos. 81-18E and 81-683E in the U.S. District Court for the Western District of New York, which was approved by the Court on February 19, 1982.

QUESTION 11. (B) What are the present estimated costs to solidify and stabilize the wastes at West Valley?

ANSWER.

The Department of Energy has reported a cost of approximately 454 million dollars for the West Valley Demonstration Project (WVDP).

QUESTION 11. (C) What portion of costs for waste management at West Valley will be paid by the federal government, the state government, and NFS?

ANSWER.

The West Valley Demonstration Project Act, Public Law 96-386, directs the Department of Energy to pay 90 percent of the costs and the State to pay 10 percent of the costs of the waste solidification project. Upon payment of the sums stated in the Settlement Agreement, NFS was relieved of further responsibility with respect to the cost of the project. (See Settlement Agreement, Section 3.)

QUESTION 12. (A) Are there other facilities, active or inactive, reactors or fuel cycle plants, licensed by AEC or NRC at which radioactive waste is presently buried?

ANSWER.

Yes, there are other facilities, active and inactive, reactors and fuel cycle plants, licensed by AEC or NRC at which radioactive waste is presently buried.

Low-level radioactive waste (LLW) land disposal for these licensees has been permitted under two sections of 10 CFR Part 20, namely § 20.302 and § 20.304.

Section 20.302 of 10 CFR Part 20, authorizes a licensee or applicant for a license to apply to the Commission for approval of proposed procedures to dispose of licensed material in a manner not otherwise authorized in the regulations.

Section 20.304 of 10 CFR Part 20 was rescinded by the Commission on January 28, 1981. Prior to that date, NRC licensees were authorized to dispose of specific quantities of radioactive material by land burial provided certain requirements were met. Section 20.304

specified the maximum activity per burial, the minimum depth, the maximum number of burials per year, and the distance between burial locations. No records relating to §20.304 disposal were required to be sent to either the Atomic Energy Commission or the Nuclear Regulatory Commission.

(B) If so, please provide a list of all such facilities, a brief description of the buried waste at each site, and a description of what financial arrangements have been made for long term management of the waste at each site.

ANSWER.

List of Sites

The Commission does not have a comprehensive list of all licensees authorized to dispose of low-level radioactive waste (LLW) under either § 20.302 or the rescinded § 20.304 of 10 CFR Part 20 since these two provisions were first promulgated on November 17, 1960. (25 FR 10914)

Enclosure 1 presents a list of LLW land disposal authorized by NRC under § 20.302 for fuel cycle and nuclear material licensees since 1982. Staff is also aware of one large noncommercial LLW disposal site located at the West Valley, New York, reprocessing facility which was authorized under § 20.302 and contains LLW material from the operation of the reprocessing facility.

Enclosure 2 is a list of LLW land disposal authorized by NRC under § 20.302 for reactors.

Since § 20.304 did not require specific NRC approval for such burial, the Commission has no comprehensive list of all sites or licensees that may have used this provision to dispose of its LLW. Nuclear fuel cycle facility sites known to have burial areas used by current licensees or predecessor licensees for disposal of LLW under the provisions of 10 CFR 20.304 are: Babcock & Wilcox site at Parks Township, PA; Combustion Engineering site at Hematite, MO; Nuclear Fuel Services site at Erwin, TN; Sequoyah Fuels site at Gore, OK; Sequoyah Fuels site at Crescent, OK; and Texas Instruments site at Attleboro, MA. The above sites contain varying quantities of source material and enriched uranium.

It should be noted that since January 28, 1981, the Office of Nuclear Material Safety and Safeguards (NMSS) has granted approval for land disposal of low-level radioactive waste (LLW) under § 20.302 only if the quantities and concentrations of the LLW are such that the site may be released for unrestricted use upon termination of the license.

Financial Arrangements

In the preparation of the financial assurances provisions for 10 CFR Part 61 for commercial LLW land disposal, it was determined that the Commission lacked statutory authority to require its licensees to have funds for any long-term maintenance or monitoring of a LLW site. This lack of authority was raised by the Commission before Congress and resulted in the enactment of Section 151(a) of the Nuclear Waste Policy Act of 1982.

Under Section 151(a)(2), if the Commission determines that any long-term maintenance and/or monitoring will be necessary at a licensed LLW site, the Commission is to ensure, before terminating the license, that the licensee has made available such bonding, surety, or other financial arrangements as may be necessary to ensure that any needed long-term maintenance or monitoring will be carried out by the person having title and custody for the site after license termination.

The Commission's General Counsel has determined that the statutory authority under Section 151(a) is not limited to LLW disposal and is sufficiently broad to support developing a regulation to require current licensees who have disposed of LLW under § 20.302 and rescinded § 20.304 to have adequate financial arrangements for

long term monitoring and maintenance, if needed. The staff is currently considering undertaking a rulemaking under Section 151(a) to require licensees to provide financial assurance for any needed long-term maintenance or monitoring for those LLW land disposal sites which could not be released for unrestricted access after license termination.

Enclosures:

1. A list of LLW land disposal authorized by NRC under § 20.302 for fuel cycle and nuclear material licensees since 1982.

2. A list of LLW land disposal authorized by NRC under § 20.302 for reactors.

ENCLOSURE 1

SECTION 20.302 AUTHORIZATIONS FOR BURIAL
FOR FUEL CYCLE AND NUCLEAR MATERIAL LICENSEES
DECEMBER 1982 TO OCTOBER 1986

1. OHIO AGRICULTURE R&D - WOOSTER, OH
   PAPER, PLASTIC, TRASH, CARCASSES, SCINTILLATION MEDIA

2. MONTANA STATE UNIVERSITY - NORRIS, MT
   LABORATORY TRASH, AQUEOUS WASTES,

3. ATLANTIC RESEARCH CORPORATION - ALEXANDRIA, VA
   SOIL

4. HARVARD UNIVERSITY - BOSTON, MA
   PAPER, PLASTIC, TRASH, CARCASSES

5. HALLIBURTON SERVICES - DUNCAN, OK
   SAND

6. HONEYWELL, INC. - MINNEAPOLIS, MN
   SEDIMENT

7. UNIVERSITY OF ALASKA - FAIRBANKS, AK
   CARCASSES

8. GENERAL ELECTRIC - CLEVELAND, OH
   PAPER, PLASTIC, GLASS, WIRE

MARKEY/NMSS
10/28/86

ENCLOSURE 2

FACILITY	MATERIAL	VOLUME (M^3)	TOTAL ACTIVITY (MCI)	CONCENTRATION PCI/GM OR/CC
SAN ONOFRE	SAND	300	0.05-0.20	< 0.5
OYSTER CREEK	SOIL	500	4	5
HB ROBINSON	SEDIMENT	9000	95	< 45
	SOIL	1.5	0.01	1
MCGUIRE	SLUDGE	240-380/YR	0.10/YR	0.24
OCONEE	FEEDWATER HEATERS	[160 TONS]	6.5	12
	SAND	45	< 12	< 150
BIG ROCK POINT	SOIL	150	0.03	0.14
TURKEY POINT	SOIL	70	35	465

MARKEY/NRR
10/28/86

QUESTION 13. During the hearing, Chairman Zech noted that there were no generic requirements for decommissioning fuel cycle facilities, but that plans were imposed as licensing conditions.

(A) Which fuel cycle facilities have submitted decommissioning plans, including plans for funding?

ANSWER.

Enclosure 1 is a list of fuel cycle facilities that have submitted decommissioning plans, only NFS has a funding plan. Enclosure 2 is a list of uranium mills and the status of these decommissioning plans.

Enclosures:

1. List of fuel cycle facilities that have submitted decommissioning plans.

2. List of uranium mills and the status of these decommissioning plans.

QUESTION 13. (B) Which of these plans has NRC approved?

ANSWER.

All plans have been approved.

QUESTION 13. (C) Which fuel cycle facilities have not submitted decommissioning plans and plans for funding?

ANSWER.

All fuel cycle facilities have submitted decommissioning plans, as previously noted, only NFS has a funding plan.

ENCLOSURE 1

ALLIED CORPORATION	METROPOLIS, ILLINOIS
BABCOCK & WILCOX	PARKS TOWNSHIP, PENNSYLVANIA
BABCOCK & WILCOX	LYNCHBURG, VIRGINIA
BABCOCK & WILCOX	APOLLO, PENNSYLVANIA
BABCOCK & WILCOX	LYNCHBURG, VIRGINIA
COMBUSTION ENGINEERING	HEMATITE, MISSOURI
COMBUSTION ENGINEERING	WINDSOR, CONNECTICUT
ENERGY SYSTEMS GROUP	CANOGA PARK, CALIFORNIA
EXXON NUCLEAR	RICHLAND, WASHINGTON
GA TECHNOLOGIES	SAN DIEGO, CALIFORNIA
GENERAL ELECTRIC	WILMINGTON, NORTH CAROLINA
NUCLEAR FUEL SERVICES	ERWIN, TENNESSEE
SEQUOYAH FUELS CIMMARON URANIUM	CRESCENT, OKLAHOMA
SEQUOYAH FUELS CIMMARON PLUTONIUM	CRESCENT, OKLAHOMA
SEQUOYAH FUELS CORPORATION	GORE, OKLAHOMA
UNC, INC.	MONTVILLE, CONNECTICUT
UNC, INC.	WOOD RIVER JUNCTION, RHODE ISLAND
WESTINGHOUSE ELECTRIC	COLUMBIA, SOUTH CAROLINA

MARKEY/NMSS
10/28/86

ENCLOSURE 2

LIST OF NRC-LICENSED URANIUM MILLS

STATUS OF RECLAMATION PLANS AND SURETIES

MILL	STATE	APPROVED REC PLAN	APPROVED SURETY
PATHFINDER SHIRLEY BASIN	WY	UNDER REVIEW	YES
PETROTOMICS	WY	UNDER REVIEW	YES
EXXON HIGHLANDS	WY	YES	YES
BEAR CREEK URANIUM	WY	YES	YES
AMERICAN NUCLEAR CORP	WY	YES	YES
UMETCO	WY	YES	YES
PATHFINDER LUCKY MC	WY	UNDER REVIEW	YES
MINERALS EXPLORATION CO.	WY	YES	YES
WESTERN NUCLEAR CORP.	WY	YES	YES
PLATEAU RESOURCES LTD	UT	YES	YES
UMETCO	UT	YES	UNDER REVIEW
ATLAS MINING CORP.	UT	YES	NO
RIO ALGOM	UT	UNDER REVIEW	YES

MARKEY/RIV
10/28/86

TENNESSEE VALLEY AUTHORITY	SD	YES	U.S. GOVT
UNC CHURCHROCK	NM	NO*	NO**
QUIVIRA	NM	UNDER REVIEW	NO**
HOMESTAKE MINING CO.	NM	NO*	NO**
ANACONDA MINING CO.	NM	NO*	NO**
KENNECOTT/SOHIO	NM	UNDER REVIEW	NO**

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* NRC HAS COMMITMENTS TO SUBMIT RECLAMATION PLANS BY LICENSEES

** NEW MEXICO HOLDS SURETIES. NRC HAS COMMITMENTS FOR NEW SURETIES WHEN RECLAMATION PLANS ARE APPROVED.

MARKEY/RIV
10/28/86

QUESTION 14. During the hearing, the Commission indicated that it might reexamine the issue of whether the emergency planning conditions proposed by the NRC staff in SECY-82-311 for NFS Erwin should be approved.

(A) Has the Commission reexamined this issue?

(B) If so, what did the Commission decide?

(C) If not, when does the Commission expect to revisit this issue?

ANSWER.

In acting on the NRC staff's proposed rule on emergency preparedness for fuel cycle and other radioactive material licensees, SECY 86-99, the Commission voted that the rule be revised to address more directly the need to consider and plan for any serious non-radiological hazards to the public and to reflect the lessons learned from the Sequoyah Fuel accident. The NRC staff is working to redraft the proposed rule and resubmit it to the Commission for consideration early next year.

QUESTION 15 During the hearing, Commission staff made a commitment that, if possible, the NIOSH study on NFS workers would be designed so that quick answers might be obtained.

(A) Is it possible to design the study so that relatively quick answers might be obtained?

ANSWER.

Representatives of NIOSH met with NFS and Oil, Chemical, and Atomic Workers Union (OCAW) representatives at the site on October 15, 1986. To determine the feasibility of studies at NFS, NIOSH representatives reviewed records systems in the areas of dosimetry, urinalysis, and invivo counting and reviewed the medical records system. During this review, NIOSH focused attention on workers who worked in areas where larger quantities of low enriched uranium were processed and on some workers who have been restricted from further exposure to uranium based on previous internal depositions of uranium or thorium. NIOSH also requested that OCAW cooperate in providing NFS worker medical records in the possession of the OCAW Medical Consultant, Dr. Kenneth Miller. Testimony provided by Mr. N. W. Hancock at the September 18, 1986, hearing indicated Dr. Miller had relevant medical records and had concluded that there was a problem. OCAW representatives agreed to cooperate with NIOSH and provided NIOSH with information necessary for NIOSH to obtain these records.

NIOSH agreed to look at the records for those individuals who have medical complaints to determine if the complaints are indicators of kidney damage that could result from uranium exposure. NIOSH indicated that after review of these records they would make further recommendations to the NRC as to what type of study might be appropriate. The Commission intends to ask NIOSH to conduct such a study expeditiously.

QUESTION 15. (B) If so, what is the estimated date for an initial determination of whether workers might have been injured by uranium exposure?

ANSWER.

NIOSH indicated they could have recommendations on a study to the NRC within a few weeks of receipt of the medical records from the OCAW. The type of action recommended by NIOSH will define the schedule for determining whether workers might have been injured by uranium exposure. NIOSH is aware of the need to answer workers' questions promptly. The NRC has requested that proposals include, if scientifically appropriate, methods to obtain answers relatively quickly.

In summarizing their preliminary findings, NIOSH representatives stated that:

- It appeared that a study to determine if there might be an increase in cancer rates among workers was probably not feasible because there has been too short a time between exposure and the present and because there are too few workers exposed.

- A study of kidney damage might involve medical examination of current workers or an epidemiological study utilizing NFS

records. There was no recommendation on the feasibility of either study at that time, but an epidemiological study likely would not provide answers as promptly as the medical evaluations.

QUESTION 16. Please describe the procedure that NRC would follow to reduce occupational limits for uranium exposure.

ANSWER.

Because NRC has been concerned about exposure to soluble uranium, several steps have already been taken. The Office of Nuclear Regulatory Research is sponsoring animal experiments to better define the kidney concentration of uranium that produces toxic responses. NRC has also contracted with the National Academy of Sciences for the BEIR IV Committee to make a recommendation regarding intake limits for soluble uranium. If so indicated, as necessary, NRC will follow the Agency's procedures for amending its regulations to lower the limits.

QUESTION 17. During the hearing, union witnesses claimed that the union had informed the NRC of kidney problems among workers as early as July 1985. Does the NRC agree with this statement? If so, why did the NRC ignore these allegations until the Subcommittee brought them to the Commission's attention?

ANSWER.

The NRC staff does not agree with this statement. The NRC staff met with the Oil, Chemical, and Atomic Workers Union (OCAW) on two occasions in July 1985. During the discussion many things were alleged, but no staff member in attendance remembers allegations about kidney damage. As a result of these meetings, NRC's Region II staff contacted the OCAW and requested specifics regarding the allegations. None of the allegations related to kidney problems among workers. By letter dated September 3, 1985 (Robert Wages, Vice President, OCAW, to Chairman Palladino), the OCAW listed 20 specific allegations, none of which identified kidney problems.

When the NRC became aware of this concern on the part of the workers, noted in the Subcommittee's letter dated January 7, 1986, the NRC promptly initiated action to obtain details on the potential health effects. The NRC requested, from the Subcommittee and the OCAW, copies of the tapes noted by the Subcommittee to contain

information on health effects. After several calls and a letter dated January 30, 1986, to the OCAW, the NRC received a copy of the transcripts of the tapes on March 11, 1986. In addition, the NRC contacted individuals making allegations and arranged to interview these persons near the site to obtain details of allegations involving any health effects.

Based on the information in the Subcommittee's letter of January 7, 1986, steps were taken in January 1986 to have NIOSH review any information on potential health impacts of NFS operations on NFS workers. The progress on the NIOSH involvement is detailed in the answer to Question 15.

QUESTION 18. During the hearing, a union witness stated that uranium contamination was present in the lunchroom ventilation system, and not merely tracked into the lunchroom by workers.

(A) Does the NRC agree with this analysis?

ANSWER.

During an onsite inspection on September 23-27, 1985 (Inspection Report No. 70-143/85-34), a Region II radiation specialist evaluated potential sources of low level contamination found infrequently in the lunchroom. This review included performance of contamination surveys in the lunchroom input and output ventilation ducts. No contamination was found in the ventilation ducts. During the most recent meeting with NFS to review the PIP status, NFS stated that only two smears out of approximately 2700 taken since May 1985 exceeded the plant's action level for decontamination and these were taken prior to the end of the strike. The NRC continues to believe that a more likely source of contamination in the lunchroom is probably protective clothing, with low levels of residual contamination, worn by workers into lunchrooms.

QUESTION 18. (B) If so, will merely prohibiting work clothing in the lunchroom area be sufficient to solve the problem of lunchroom contamination?

ANSWER.

Prohibiting wearing of protective clothing along with continuous emphasis on contamination monitoring by workers when they leave controlled areas should eliminate the problem of lunchroom contamination. NFS has notified the NRC that the complete elimination of protective clothing in lunchrooms will now take place in Spring 1987. The new implementation date is due to delays in the installation of a new laundry with sufficient capacity to handle the increased use of protective and clean clothing.

P/18/86 Transcript File

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

November 21, 1986

JC-gen. Hearings

The Honorable Edward J. Markey, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

This letter forwards the response to Question 4(B) of your letter dated October 15, 1986 concerning the Nuclear Fuel Services uranium facility in Erwin, Tennessee. Answers to the rest of the questions were forwarded to you in our letter dated November 14.

Concerning the potential problem of compliance with the Federal Advisory Committee Act noted in the response to Question 4(B), Chairman Zech has directed that the report of the Materials Safety Regulation Review Study Group be held in abeyance until this matter is resolved.

Sincerely,

Edward Tracy

Carlton Kammerer, Director
Office of Congressional Affairs

Enclosure:
As stated

cc: Rep. Carlos Moorhead

QUESTION 4. (B) What is the Panel's charter?

ANSWER.

The purpose of the experts was to review the activities related to safety of the licensing and inspection program for fuel cycle and material facilities and to provide independent analysis and recommendations to improve the safety and efficiency of the program.

Enclosed is a copy of the Task Description, dated April 18, 1986, that was sent to the individual consultants by Victor Stello, Jr., on May 16, 1986, in establishing this effort. While this Task Description states that a general charter would be formulated, this was not done. The consultants were to conduct their activities in accordance with each of their individual contracts. The Scope of Work of each individual contract was based on the enclosed Task Description.

Commissioner Asselstine adds the following:

Following the Subcommittee's September 18, 1986 hearing, I became aware of questions regarding the manner in which the Blue Ribbon Panel was organized and functioned. It appears that the Blue Ribbon Panel functioned as an advisory committee without complying with the requirements of the Federal Advisory Committee Act. I am

continuing to pursue the matter with the NRC staff and the General Counsel's Office and will provide you with any additional information I receive on this subject.

Enclosure:

Task Description, dtd April 18, 1986

April 18, 19

TASK DESCRIPTION

MATERIALS SAFETY REGULATION REVIEW STUDY

Background

The materials safety regulatory program within AEC/NRC has grown since 1946 when radioisotopes were first used under AEC permit, outside of government installations, for "peaceful" purposes. The program has grown from limited uses by a few licensees to a multitude of uses by thousands of licensees. The safety licensing and inspection program has not recently been independently reviewed to assess its appropriateness to protect workers, public health and safety, and the environment and, at the same time, allow the use of radioactive and nuclear material.

Organizational Approach

A study group of three to five persons who have backgrounds and interests suitable for reviewing the safety licensing and inspection for the activities within the licensing purview of the Office of Nuclear Material Safety and Safeguards, Division of Fuel Cycle and Material Safety, will be assembled. The study group will be reimbursed, making use of NRC contractual arrangements as appropriate. The study group will have one of its members designated as Chairperson, who, in conjunction with the Executive Director for Operations (EDO), will formulate a general charter for the study. The study group will arrange for its own administrative and secretarial support.

Schedule

The study group should complete its review on a schedule that will permit it to submit a report to the EDO no later than September 30, 1986. It is estimated that the level of effort expended by the study group will be approximately 30 da for each panel member and additional secretarial and travel expenses.

Suggested Study Group Membership

Study Group Chairperson, Dr. Clifford V. Smith, Oregon State University, (Nuclear Engineer)
Edson G. Case, Retired, (Nuclear Engineer)
Thomas Engelhart, Retired, (Attorney)
Ralph G. Page, Retired, (Health Physicist)
Dr. John M. Googin, Martin Marietta, Oak Ridge, (Chemical Engineer)

Task Description

The Materials Safety Regulation Review Study Group (MSRRSG) is to accomplish a review of the safety licensing of those activities within the licensing purview of the Office of Nuclear Material Safety and Safeguards, Division of Fuel Cycle and Material Safety, and of the inspection of those licensed activities as performed under the programmatic direction of the Office of Inspection and Enforcement. The activities currently delegated to the regional offices of

these type licensees also are to be reviewed. The area of NRC transportation regulation, which was examined by the ACRS in 1981, will not be included in t MSRRSG review.

The review should cover:

- o Appropriateness of the administrative practices and regulations in fulfilling the statutes governing this program.
- o Appropriateness of the licensing safety review process. Particular attention should be given to:
  - Coverage given "non-nuclear" processes, systems and components within the licensed activity.
  - Requirements and attention directed to licensee management of his licensed operation.
  - "Performance" regulation or "prescriptive" regulation.
  - Administrative or procedural control of safety or engineered design control of safety.
  - Technical adequacy of staff, both NRC and licensee.
  - The extent to which other federal and state agencies have regulatory responsibilities for materials licensees and how they interrelate with NRC responsibilities.
- o Appropriateness of the inspection process.
  - Focus on items and activities that are most important to safety including "non-nuclear" systems.
  - Independent determination of licensee activities.
  - Qualification of inspectors.
  - Level of onsite inspection effort for materials licensees.
  - Categorization and frequency of inspections.
  - "Routine" inspection approach or "reactive" inspection approach.
  - Corrective actions and enforcement.

Given the above items as a starting point, the MSRRSG should consider itself unrestricted in its review and should explore any area that is deemed to be germane to the issues under consideration.

NRC management is interested in the MSRRSG conclusions on the adequacy of the current program to fulfill its legal requirements and protect workers, public health and safety, and the environment. In arriving at these conclusions the MSRRSG should also consider the impact of resources which are available to administer the licensing and inspection program.

NRC management's prime interest in this review is the MSRRSG's insight and recommendations for changes or modifications which may improve the efficiency and effectiveness of this program in worker, public health and safety, and environmental protection. In making its recommendations, the MSRRSG should consider required resources as well as the relative safety risks associated with these activities in relation to other NRC regulatory responsibilities. The MSRRSG may identify additional regulatory or statutory authorities that may be needed to achieve the recommended changes or modifications.

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U.S. HOUSE OF REPRESENTATIVES

SUBCOMMITTEE ON ENERGY CONSERVATION AND POWER
OF THE
COMMITTEE ON ENERGY AND COMMERCE
WASHINGTON, DC 20515

October 15, 1986

The Honorable Lando W. Zech, Jr.
Chairman
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Dear Mr. Chairman:

I wish to thank you and the Commissioners for your testimony before the Subcommittee on September 18, 1986 on the operating record of the Nuclear Fuel Services uranium fuel facility in Erwin, Tennessee. As I hope you can appreciate, there was not sufficient time at the hearing to explore all issues in depth, and some further questions are necessary. I would therefore appreciate your answers to the enclosed posthearing questions by November 14, 1986.

At the hearing, the Commission made a commitment to reexamine the issue of whether information on the NFS decommissioning fund and on estimated decommissioning costs should be considered proprietary. You indicated that it should be possible to supply the Subcommittee with an answer on this issue within three weeks of the hearing. Since almost one month has now passed, you should be in a position to answer immediately the enclosed Questions 5 and 6.

If you have any questions on this posthearing material, please contact John Abbotts of the Subcommittee staff at (202) 226-2424. I look forward to your timely response to these questions.

Sincerely,

Ed Markey

Edward J. Markey
Chairman

POSTHEARING QUESTIONS FOR THE NUCLEAR REGULATORY COMMISSION ON THE NUCLEAR FUEL SERVICES FACILITY IN ERWIN, TENNESSEE

Please answer the following questions:

1. By Chairman Zech's own testimony, much remains to be done to upgrade the quality of operations and radiological control, as well as cleanliness, at NFS Erwin. Please describe the NRC's overall plan for such an upgrading, and estimated dates that the NRC will require for completion of major improvements.

2. During the hearing, Chairman Zech mentioned a letter from Charles Taylor, President of NFS Erwin, which the Chairman had received a few days before the hearing. Please provide a copy of this letter.

3. What is the Commission's position on what involvement the U.S. Navy should have in regard to health and safety issues at the Erwin facility?

4. During his testimony, Commissioner Asselstine referred to a blue ribbon panel to examine NRC regulations of materials licensees.

   a. What is the composition of this panel?

   b. What is the panel's charter?

   c. When is the panel expected to complete its work?

5. The Commission made a commitment during the hearing to reexamine the issue of whether amounts in the NFS decommissioning fund and estimated costs of decommissioning should remain proprietary information.

   a. What has been the result of the Commission's reexamination?

   b. If the Commission still considers this information proprietary, what is the basis for this position?

6. If the Commission no longer considers material described in Question 5 to be proprietary, please provide the following:

a. The information on decommissioning cost estimates deleted from "Status Briefing Report: Region II's Perception," prepared during the fall of 1985 and released with Mr. Carlton Kammerer's letter of September 17, 1986 to the Subcommittee.

b. The amount of money presently in the NFS decommissioning fund, and the estimated amount for 1988.

c. Any more recent estimates on the costs of decommissioning the retention ponds, the waste burial pits, and the entire site at NFS Erwin.

7. Present plans are for NFS to add money to the decommissioning fund until 1988. What will happen to the fund after 1988?

8. What agreements does NFS have with the state of Tennessee for management of waste buried at Erwin? Please provide copies of all such agreements.

9. a. If the NFS decommissioning fund proves insufficient to pay for decommissioning, would NRC attach the assets of Texaco or previous parent companies to fully pay for decommissioning?

b. If NRC would not attach the assets of Texaco or previous parent companies, what is the basis for such a position?

c. If NRC would attach the assets of such companies, does it have the statutory authority to do so?

10. a. What measures have been taken to stabilize the pile of contaminated dirt on site at NFS Erwin which was removed from railroad property northwest of the site?

b. What are the plans for ultimate disposition of this dirt?

11. a. At the time that NFS turned over responsibility for perpetual care of the waste at West Valley to New York state, how much money was in the company's long term waste management fund?

b. What are the present estimated costs to solidify and stabilize the wastes at West Valley?

c. What portion of costs for waste management at West Valley will be paid by the federal government, the state government, and NFS?

12. a. Are there other facilities, active or inactive, reactors or fuel cycle plants, licensed by AEC or NRC at which radioactive waste is presently buried?

b. If so, please provide a list of all such facilities, a brief description of the buried waste at each site, and a description of what financial arrangements have been made for long term management of the waste at each site.

13. During the hearing, Chairman Zech noted that there were no generic requirements for decommissioning fuel cycle facilities, but that plans were imposed as licensing conditions.

a. Which fuel cycle facilities have submitted decommissioning plans, including plans for funding?

b. Which of these plans has NRC approved?

c. Which fuel cycle facilities have not submitted decommissioning plans and plans for funding?

14. During the hearing, the Commission indicated that it might reexamine the issue of whether the emergency planning conditions proposed by the NRC staff in SECY-82-311 for NFS Erwin should be approved.

a. Has the Commission reexamined this issue?

b. If so, what did the Commission decide?

c. If not, when does the Commission expect to revisit this issue?

15. During the hearing, Commission staff made a commitment that if possible, the NIOSH study on NFS workers would be designed so that quick answers might be obtained.

a. Is it possible to design the study so that relatively quick answers might be obtained?

b. If so, what is the estimated date for an initial determination of whether workers might have been injured by uranium exposure?

16. Please describe the procedure that NRC would follow to reduce occupational limits for uranium exposure.

17. During the hearing, union witnesses claimed that the union had informed the NRC of kidney problems among workers as early as July 1985. Does the NRC agree with this statement? If so, why did the NRC ignore these allegations until the Subcommittee brought them to the Commission's attention?

18. During the hearing, a union witness stated that uranium contamination was present in the lunchroom ventilation system, and not merely tracked into the lunchroom by workers.

a. Does the NRC agree with this analysis?

b. If so, will merely prohibiting work clothing in the lunchroom area be sufficient to solve the problem of lunchroom contamination?