

# REGULATORY DOCKET FILE COPY

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Docket No. 50-213

MAY 08 1980

The Honorable Stewart B. McKinney  
United States House of  
Representatives  
Washington, D. C. 20515

Dear Congressman McKinney:

Docket	Ross
NRC PDR (w/inc)	Mattson
Local PDR (w/inc)	OELD
EDO Reading	OCA (3)
NRR Reading	G. Ertter (EDO-08336)
ORB #2 Reading	MGroff
STello	LMiller
J. Cook	D.L.Ziemann
HDenton	HSmith
ECase	TVWambach
Berkow/Russell	CJHeltemes, AE0D
DeYoung	RDSilver
RHVollmer	SECY (3)
DEisenhut	
Ross	

Your memorandum to Chairman Ahearn has been referred to me for reply. Your memorandum referred to concerns expressed by Messrs Cohen and Cholmar that the Haddam Neck Plant does not have adequate protection against fires. In particular, Messrs Cohen and Cholmar expressed concern about a planned modification of the Haddam Neck Plant to enable alternate shutdown capability.

The NRC has performed an extensive evaluation of fire protection at the Haddam Neck Plant. The purpose of the evaluation was to assure through a defense-in-depth design, that a fire will not prevent the performance of necessary safe plant shutdown functions and will not significantly increase the risk of radioactive releases to the environment. The required fire protection program at the Haddam Neck Plant consists of fire detection and extinguishers, systems and trained personnel. This multifaceted defense-in-depth program is aimed at:

- a. Preventing fires from starting.
- b. Detecting fires quickly, suppressing those fires that occur, putting them out quickly and limiting their damage.
- c. Designing plant safety systems so that a fire that gets started, in spite of the fire protection program, and burns for a considerable period of time, in spite of the fire protection activities, will not prevent essential plant safety functions from being performed.

An underlying philosophy of our requirements is that no one of these echelons can be perfect or complete by itself. Strengthening any one can compensate in some measure for weaknesses, known or unknown, in the others.

Our evaluation of Haddam Neck has resulted in numerous required improvements in the facility and in administrative controls. By letter dated February 6, 1978 we issued license requirements for existing fire protection systems and administrative controls. By letter of October 3, 1978 we issued additional license conditions requiring completion of further facility modifications and implementation of additional administration controls. The October 3, 1978 license amend-

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We have concluded in our safety evaluation for the October 3, 1978 license amendment that significant steps are being taken to provide additional assurance that safe shutdown can be accomplished and the plant can be maintained in a safe condition in response to potential fire situations. Upon implementation of the licensee's modifications to be completed this spring, we find that the fire protection program fulfills the following criteria:

- (1) Combustibles in safety-related areas are limited to the extent practicable;
- (2) Fire detection and suppression systems will minimize the effects of fire on safety-related systems and will not in themselves significantly impair the capability of safety-related systems;
- (3) A fire in any fire area will not damage safety-related structures such that they cannot perform their safety function;
- (4) A fire in any fire area will not cause the release of amounts of radioactive material in excess of those considered in previous safety evaluations.

Before we can reach a determination concerning whether the fire protection program at this facility will satisfy our objectives for satisfactory long term fire protection, the alternate shutdown capability will have to be provided. However, we have determined that in the interest of providing capability that will achieve great enhancement of overall plant safety over the long range, alternate shutdown capability should be designed utilizing design criteria developed in our Systematic Evaluation Program, a program which is examining older plants with respect to current licensing criteria.

In the interim, we conclude that based upon the report of the Special Review Group on the Browns Ferry fire (NUREG-0050) dated February 1976, and subsequent actions taken with respect to control of ignition sources, imposition of administrative controls on activities that might affect fire safety and emergency operating procedures for ultimate shutdown and cooling methods, that there is reasonable assurance that the health and safety of the public will not be endangered. The following quotation from the report summarizes the basis for our conclusion.

"Fires occur rather frequently; however, fires involving equipment unavailability comparable to the Browns Ferry fire are quite infrequent (see Section 3.3 of [NUREG-0050]). The Review Group believes that steps already taken since March 1975 (see Section 3.3.2 of [NUREG-0050]) have reduced this frequency significantly."

"Based on its review of the events transpiring before, during and after the Browns Ferry fire, the Review Group concludes that the probability of disruptive fires of the magnitude of the Browns Ferry event is small, and that there is no need to restrict operation of nuclear power plants for public safety. However, it is clear that much can and should be done to reduce even further the likelihood of disabling fires and to improve assurance of rapid extinguishment of fires that occur. Consideration should be given also to features that would increase further the ability of nuclear facilities to withstand large fires without loss of important functions should such fires occur."

We recognize that the "Risk Assessment Review Group Report to the U. S. Nuclear Regulatory Commission" NUREG/CR-0400 (The Lewis Committee Report), states that the Review Group is unconvinced of the correctness of the WASH-1400 conclusion that fires contribute negligibly to the overall risk of nuclear plant operation. In the Commission's Policy Statement dated January 18, 1979, "NRC Statement on Risk-Assessment and the Reactor Safety Study Report (WASH-1400) in Light of the Risk-Assessment Review Group Report", the Commission indicated on page 3 that it "accepts the review Group Report's conclusion that absolute values of the risks presented by WASH-1400 should not be used uncritically either in the regulatory process or for public policy purposes and has taken and will continue to take steps to assure that any such use in the past will be corrected as appropriate. In particular, in light of the Review Group conclusion on accident probabilities, the Commission does not regard as reliable the Reactor Safety Study's numerical estimate of the overall risk of reactor accident."

In summary, it is our conclusion that the operation of the facility, pending implementation of an alternate safe shutdown capability, does not present an undue risk to the health and safety of the public based on our concurrence with the Browns Ferry Special Review Group's conclusions identified above, (giving due consideration to the Commission Policy Statement) as well as the significant improvements in fire protection already made at the facility since the Browns Ferry fire. These include establishment of administrative controls over combustible materials and use of ignition sources, training and staffing of a fire brigade, and issuance of technical specifications to provide limiting conditions, operation and surveillance requirements for fire protection systems as well as many modifications to improve fire protection by the addition of barriers, fire dampers, fire detectors, fire suppression systems, etc.

In summary, it is our judgement that there has been significant improvement in fire protection at Haddam Neck, that defense-in-depth exists and that in the long term,

safety would be best served by designing an alternate shutdown capability which incorporates design features addressing safety improvements resulting from the review of other hazards considered in the Systematic Evaluation Program as well as those resulting from the fire hazards review.

Sincerely,

(Signed) T. A. Rehm

William J. Dircks  
Acting Executive Director of Operations

*MS-5-50*

*WJ*

NRD: DIR  
EBCase  
4/5/80

NRD: DIR  
HRenton  
4/80

EDD  
WJDircks  
4/6/80

*CA*  
*8/11*  
*4/3/80*

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Incoming: Rep. Stewart McKinney  
 From: Constituent referral from Sidney Cholmar & Bernard Cohen  
 To: Chairman Ahearne Date Undated  
 Subject: ~~XXXX~~ ~~XXXX~~ Alleged fire hazards at Haddam Neck reactor

- Prepare reply for signature of:
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  - Commissioner \_\_\_\_\_
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Remarks: Cpys to: RF, OCA to Acknowledge  
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For the Commission: Combs

\*Send three (3) copies of reply to Secy Correspondence and Records Branch