EDO Principal Correspondence Control

FROM:

DUE: 07/29/09

EDO CONTROL: G20090387

DOC DT: 07/07/09

FINAL REPLY:

Tom Gurdziel Oswego, New York

TO:

Chairman Jaczko

FOR SIGNATURE OF :

** GRN **

CRC NO: 09-0342

Johnson, NRO

DESC:

ROUTING:

Cost of New Commercial Nuclear Power Plants

(EDATS: SECY-2009-0343)

Borchardt Virgilio Mallett Ash

Ordaz

Burns/Gray

Diaz-Toro, OEDO

DATE: 07/08/09

ASSIGNED TO:

CONTACT:

NRO

Johnson

SPECIAL INSTRUCTIONS OR REMARKS:

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EDATS Number: SECY-2009-0343 **Source:** SECY

General Information

Assigned To: NRO OEDO Due Date: 7/29/2009

Other Assignees: SECY Due Date: NONE

Subject: Cost of New Commercial Nuclear Power Plants

Description:

CC Routing: NONE

ADAMS Accession Numbers - Incoming: NONE Response/Package: NONE

Other Information

Cross Reference Number: G20090387, LTR-09-0342 Staff Initiated: NO

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Signature Level: NRO Urgency: NO

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OCA Concurrence: NO
Special Instructions:

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Originating Organization: Citizens

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Addressee: Chairman Jaczko

Date Response Requested by Originator: NONE

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OFFICE OF THE SECRETARY CORRESPONDENCE CONTROL TICKET

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LTR-09-0342

LOGGING DATE: 07/08/2009

ACTION OFFICE:

EDO

AUTHOR:

Tom Gurdziel

AFFILIATION:

NY

ADDRESSEE:

Gregory Jaczko

SUBJECT:

Cost of new commercial nuclear power plants

ACTION:

DISTRIBUTION:

LETTER DATE:

07/07/2009

Appropriate

ACKNOWLEDGED

No

SPECIAL HANDLING:

NOTES:

FILE LOCATION:

ADAMS

DATE DUE:

DATE SIGNED:

9 Twin Orchard Drive Oswego, New York 13126 July 7, 2009

Chairman Gregory B. Jaczko U.S. Nuclear Regulatory Commission Washington, DC 20555-0001

Dear Chairman Gregory B. Jaczko:

I have noticed that prices of the newest generation commercial nuclear power plants have been estimated as high as 9 to 15 billion dollars for one plant. Is that too high?

On four separate occasions this year, I have found the competitive price being paid to electricity generators in the Vermont Yankee area. It was very close to 4 cents per kilowatt-hour 3 times. This morning it was 3.1 cents per kilowatt-hour.

Suppose that a new (competitive or non-regulated) nuclear plant can get 4 cents per kilowatt-hour for the next 40 years. If I use 10% of gross output for house loads, and if I figure on a 28 day outage every 2 years, I can roughly calculate gross income by multiplying kilowatts generated in 1 hour times .9 (to allow for house loads) times .96 (capacity factor) times hours in one year times the price received in dollars for each kilowatt.

1000 Mwe plant

 $1,000,000 \times .9 \times .96 \times 8766 \times .04 = $303,000,000$ for one year

12,100,000,000 for 40 years

1500 Mwe plant

1,500,000, x.9 x.96 x.8766 x.04 = \$454,000,000 for one year

18,200,000,000 for 40 years

So I saw that a big new plant should be able to earn its cost. Then I thought, what about expenses?

I estimated operating, maintenance, and fuel purchase costs at 2 cents per kilowatt-hour. That leaves 2 cents per kilowatt-hour for non-power level related costs. Suppose we use all of it to pay for the plant. Then, a 100 Mwe plant could pay back up to 6 billion dollars and a 1500 Mwe plant could pay back up to 9 billion dollars.

Well, that made me feel better. Remember, though, that all of the money not going to O & M (plus new fuel) is assigned to buy the plant. This means there is no owner profit, no interest is paid on the borrowed money, no money is set aside for NRC-mandated decommissioning, no money is set aside for non-mandated (but promised) decommissioning actions, and no money is set aside for 60 years of site security while the plant is in the Saf-Stor condition.

That simply is not realistic. Therefore, I am asking you to have some experienced people estimate more closely how much a new plant really can cost before inadequate cash flow leads to inadequate plant safety.

Thank you,

Tom Gurdziel

Copy:

Commissioner Dale E. Klein Commissioner Kristine L. Svinicki Received: from HQCLSTR01.nrc.gov ([148.184.44.76]) by TWMS01.nrc.gov

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