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 AUTH. NAME: BOUCHEY, G.D. AUTHOR AFFILIATION: Washington Public Power Supply System
 RECIP. NAME: SCHWENCER, A. RECIPIENT AFFILIATION: Licensing Branch 2

SUBJECT: Forwards addl info re light loads per 820301 request. Info consists of summary of bounding impact energy analysis & revised table of light loads over reactor vessel & potential energy.

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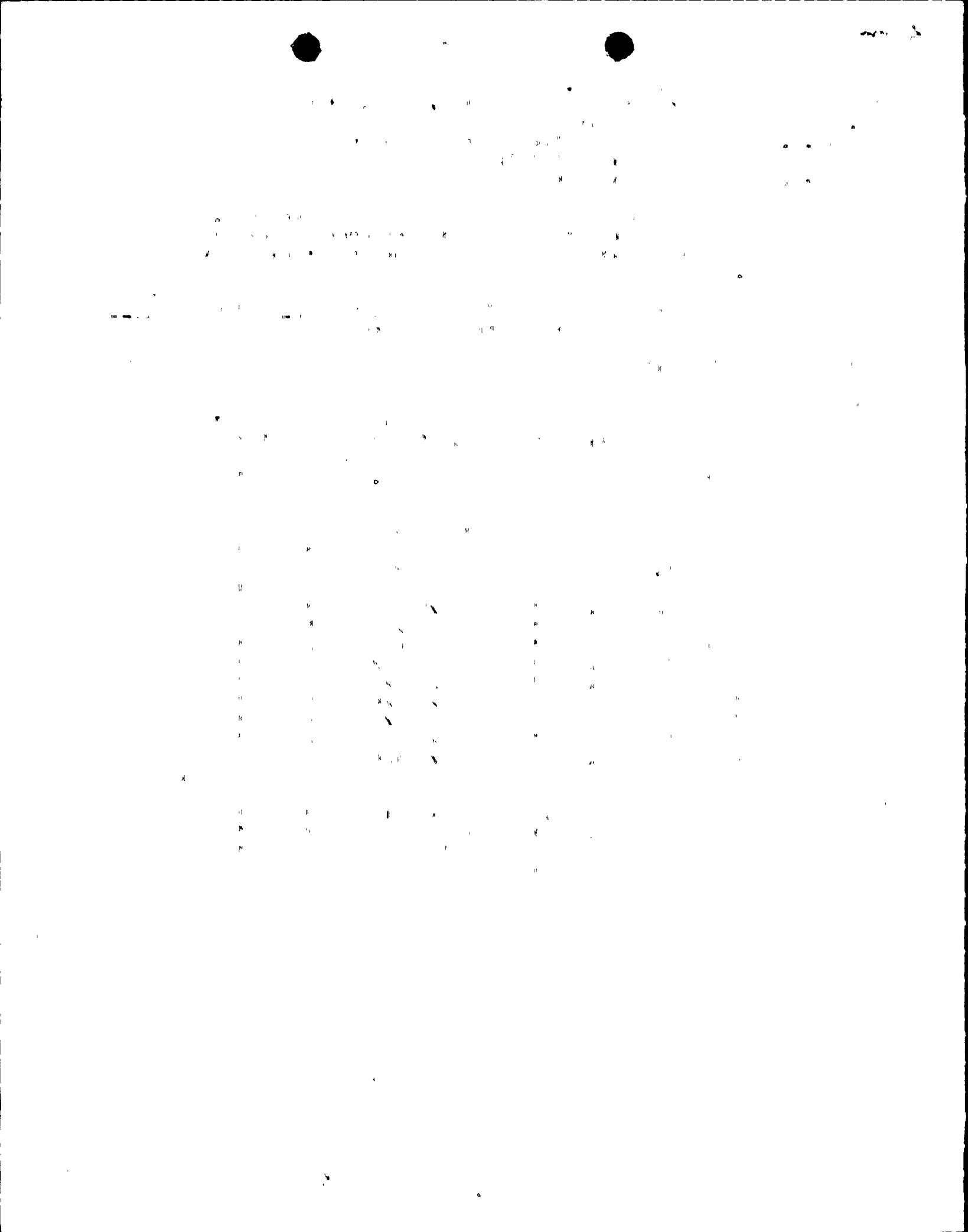
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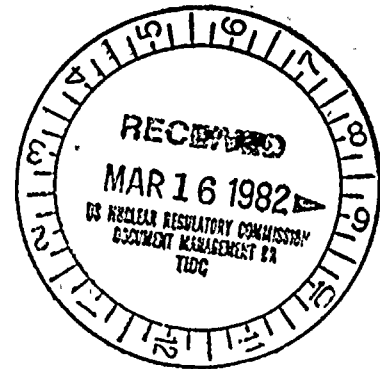
Washington Public Power Supply System

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509)372-5000

March 2, 1982
G02-82-283
SS-L-02-PLP-82-014

Docket No. 50-397

Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555



Dear Mr. Schwencer:

Subject: NUCLEAR PROJECT NO. 2
LIGHT LOADS ADDITIONAL INFORMATION

As requested during a phone conversation between R. Auluck and R. Ridgely of your staff and R.M. Nelson and J.W. Hedges of the Supply System on March 1, 1982, two (2) attachments are forwarded to confirm information provided during that conversation:

- A summary of a bounding impact energy analysis, and;
- A revised table of light loads over the reactor vessel and their potential energy.

Very truly yours,

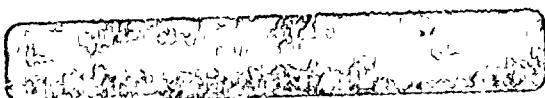
G.D. Bouchey

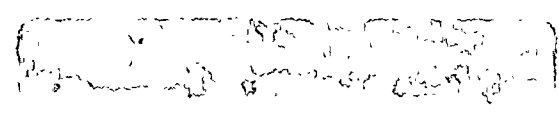
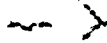
G. D. Bouchey
Deputy Director, Safety and Security

PLP/jca
Attachments

cc: R Auluck - NRC
WS Chin - BPA
R Feil - NRC Site
R Ridgely - NRC

Boo/
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1/1





ATTACHMENT I

The impact load with the highest potential energy (33,600 Ft.-Lb.) is the instrument strongback. Using the analysis provided by General Electric Company in Chapter 15.7.4 of the FSAR, 48 tie rods would fail in bending and 134 fuel rods would fail in compression, thus totalling 182 failed rods. This equates to 2.93 fuel bundles. Table 2.1-1 of NUREG-0612 shows that up to 17 bundles could fail before reaching one-fourth of the 10CFR Part 100 limits, with standby gas treatment filters in place.

ATTACHMENT II

WNP-2

TABLE 010.055-2
LIGHT LOADS OVER REACTOR VESSEL CORE (REV. 1)

ITEM	WEIGHT OF ITEM	HEIGHT IN AIR	POTENTIAL ENERGY IN AIR FT.-LB	.875 X HEIGHT IN WATER	POTENTIAL ENERGY WATER FT.-LB	TOTAL POTENTIAL
General Purpose Grapple	25#	6'	150	46'	1,150	1,300
Manipulator Grapple	50	6	300	46	2,300	2,600
J-Hook or L-Hook with 6 Sections of Pole + 5 Connectors & 1 Tee Handle	47	6	282	46	2,162	2,444
Rail Clamp	3	29	87	27	81	168
Clam Shell Retriever	15	6	90	46	690	780
Magnetic Retriever	2	6	12	46	92	104
General Area Underwater Light	40	29	1,160	27	1,080	2,240
Local Area Underwater Light	20	29	580	27	540	1,120
Drop Light	25	29	725	27	675	1,400
Underwater TV	25	29	725	27	675	1,400
Viewing Aid	11	6	66	46	506	572
Light Support Bracket	70	29	2,030	27	1,890	3,920
Fuel Support Grapple	87	6	522	46	4,002	4,524
Instrument Strongback	600	29	17,400	27	16,200	33,600
Peripheral Orifice Grapple	45	6	270	46	2,070	2,340
CRD Guide Tube Seal	150	29	4,350	27	4,050	8,400
In Core Guide Tube Seal	120	29	3,480	27	3,240	6,720
Peripheral Orifice Holder	130	29	3,770	27	3,510	7,280
Blade Guide	170	6	1,020	46	7,820	8,840
Fuel Bail Cleaner	100	6	600	46	4,600	5,200
Grid Guide	175	6	1,050	46	8,050	9,100
Dummy Fuel Assembly	600	0	0	29	17,400	17,400
Fuel Grapple	1,000	0	0	29	29,000	29,000
In Vessel Storage Rack	575	29	16,675	29	15,525	32,200
Control Rod Grapple	45	29	1,305	27	1,215	2,520
CRD Guide Tube Grapple	35	29	1,015	27	945	1,960
CRD Control Blade	183	29	5,387	27	4,941	10,248
Stud Handling Tool	135	29	3,915	27	3,645	7,650
RPV Stud	480	29	13,920	27	12,960	26,880
Stroud Head Butt Wrench	110	29	3,190	27	2,970	6,160
Head Stud Rack	300	29	8,700	27	8,100	16,800
Steamline Plug & Installing Tool	500	29	14,500	27	13,500	28,000