



RECEIVED

MAY 07 2003

BUREAU OF AIR REGULATION

May 2, 2003

Mr. Michael P. Halpin, P.E.
Florida Department of Environmental Protection
New Source Review Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Seminole Generating Station, Units 1 and 2
Control System Replacement Project

Dear Mr. Halpin:

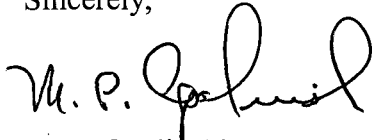
As requested in your April 24, 2003 letter, please find the enclosed information:

1. Block diagrams of control systems for Units 1 and 2 as they are now and would be after the replacement project is completed. The changes are identical for both units, but the controls for river water intake for both units is in the Unit 1 system as reflected in the diagrams.
2. A listing of transmitters, actuators and signal converters (M/P devices) that need to be replaced as part of this project because the existing ones would not be compatible with the new controls. We do not consider these listed pieces of equipment to be final control elements (FCE) such as the motors, pumps, soot blowers, pulverizers, burners, etc. described in your letter. As previously stated, and as evidenced by the attached listings, this project does not involve replacing any equipment that generates, affects or controls air emissions. The attached spreadsheets also contain the specifications for the existing equipment that the new equipment will, at a minimum, have to comply with. Since the replacement equipment has not been purchased, we are unable to provide specification sheets for the new equipment at this time.

Mr. Halpin
May 2, 2003
Page 2

I hope these enclosures provide the information that you were requesting and provides the assurance that this controls replacement project will not affect air emissions and therefore not trigger any air permitting requirements. If you have any questions, please feel free to call me.

Sincerely,

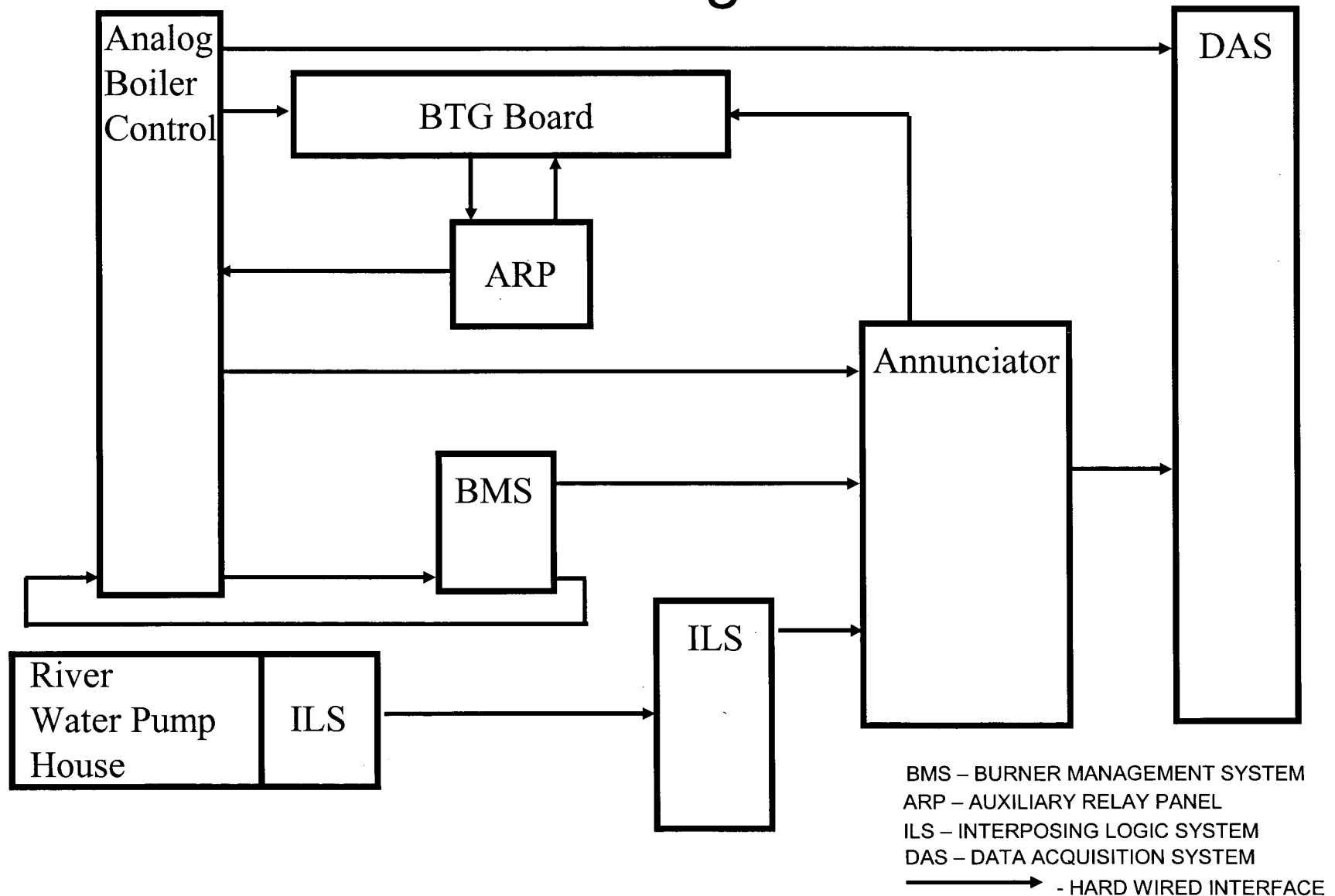
A handwritten signature in black ink, appearing to read "M. P. Opalinski". The signature is fluid and cursive, with the first name "M." and last name "Opalinski" clearly distinguishable.

M. P. Opalinski
Director of Environmental
and Engineering Services

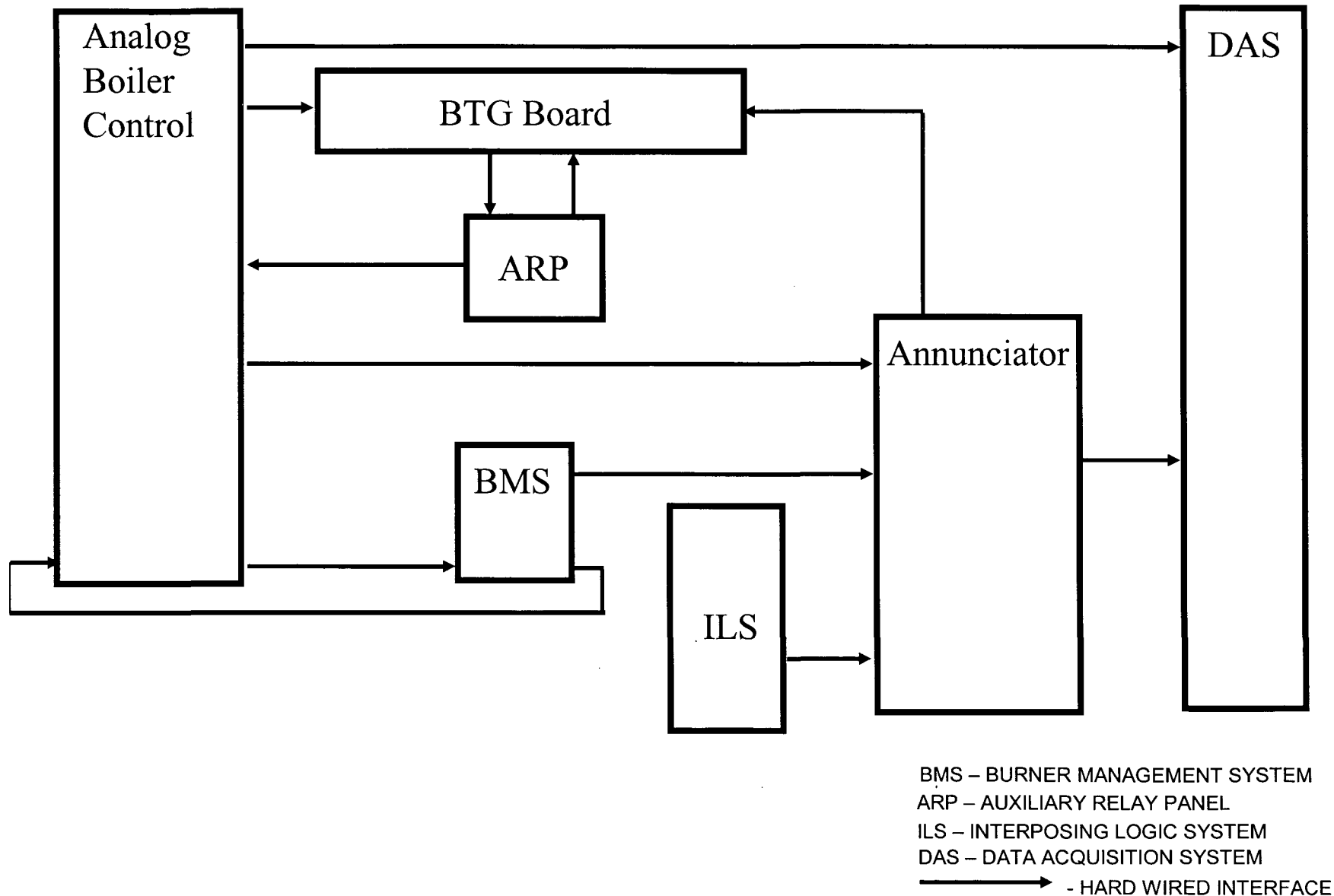
Enclosure

cc: Chris Kirts, DEP-NED

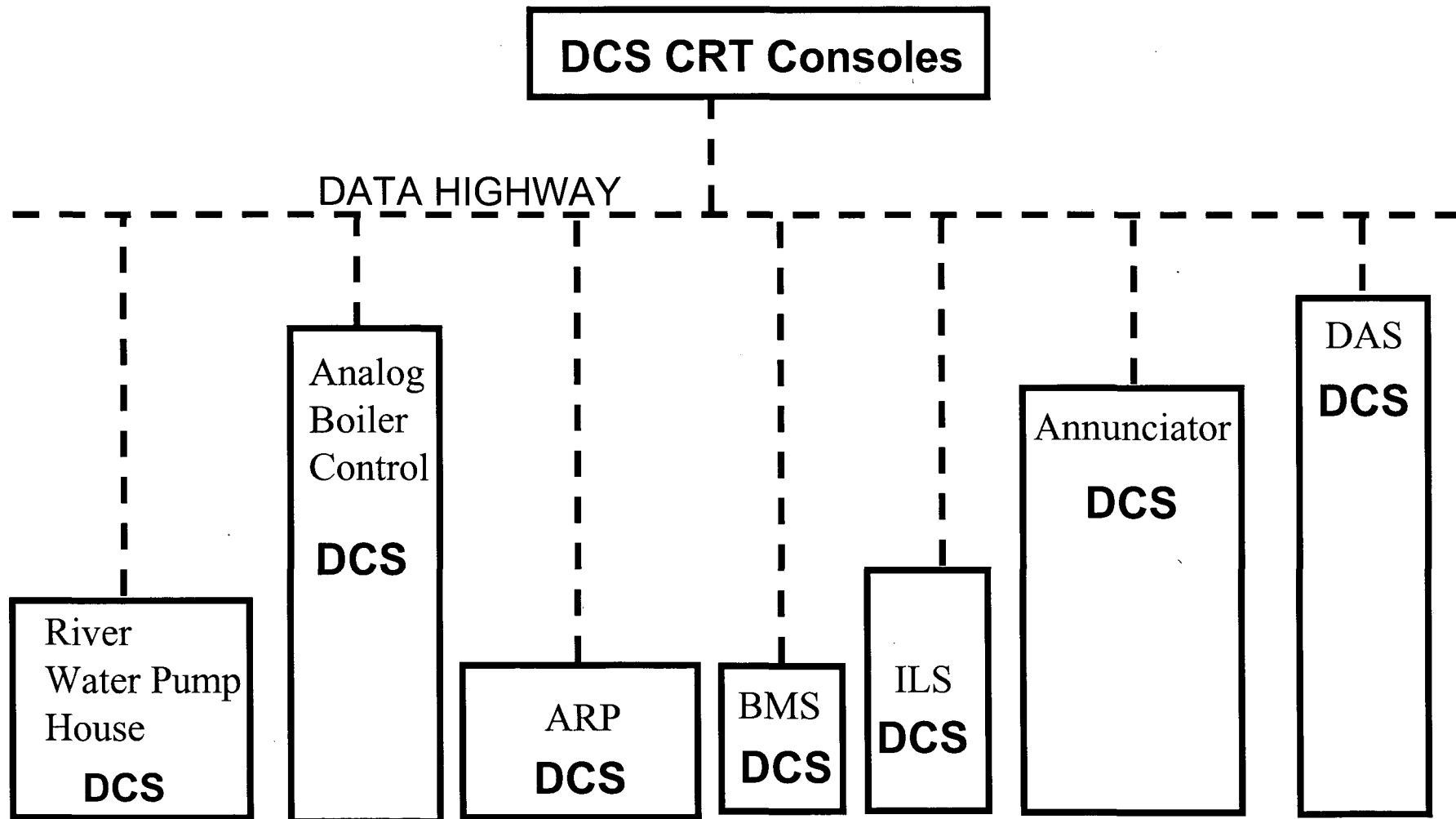
SGS Unit 1 – Existing Control Systems Block Diagram



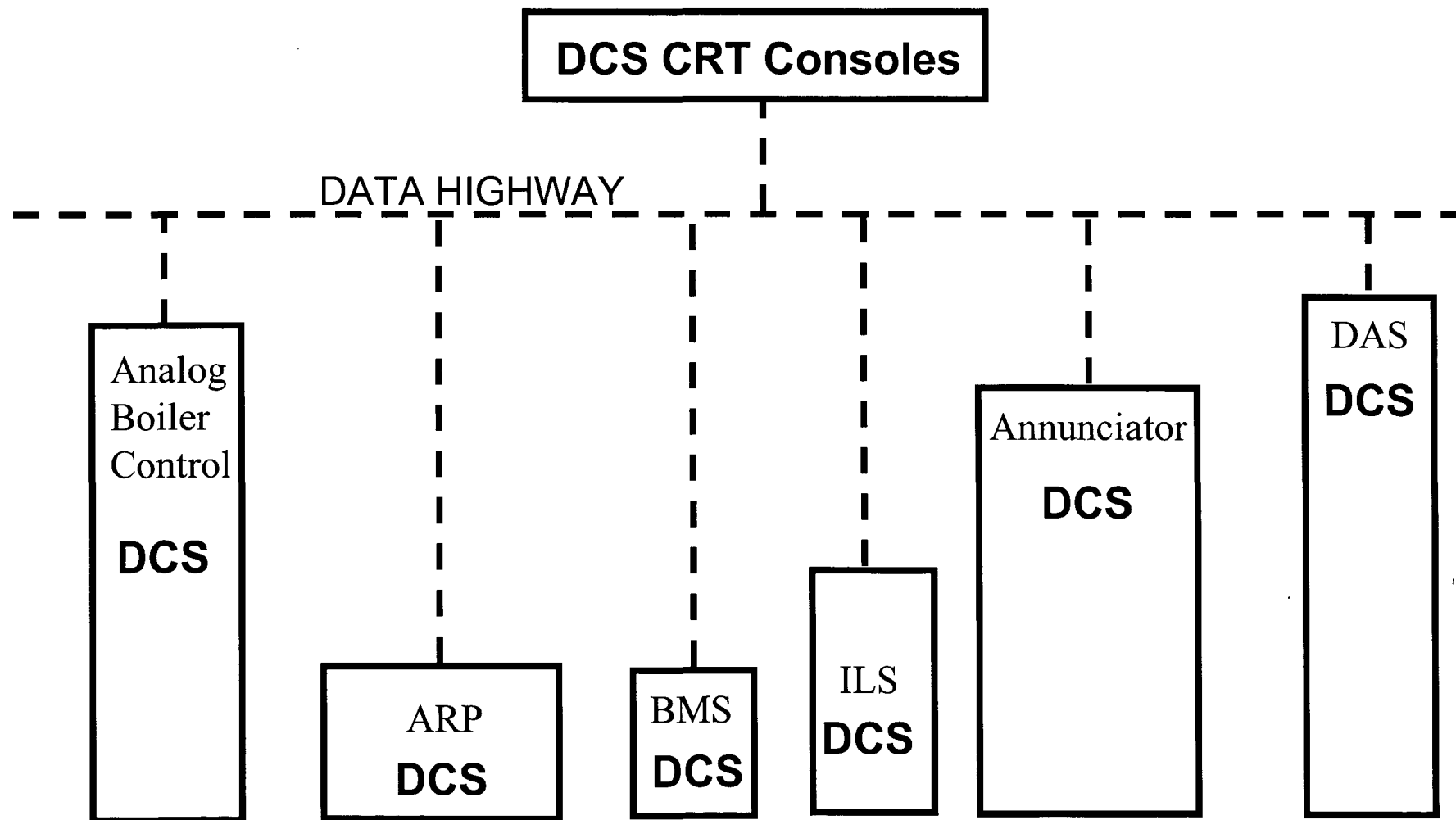
SGS Unit 2 – Existing Control Systems Block Diagram



SGS Unit 1 – New Distributed Control System (DCS) Block Diagram



SGS Unit 2 – New Distributed Control System (DCS) Block Diagram



SGS - INTEGRATED CONTROL SYSTEM REPLACEMENT -
CONTROL DRIVE LIST

ITEM NO.	QTY	DESCRIPTION & SERVICE	EXISTING CATALOG NO.	RATED TORQUE FT. LB	SHAFT ROTATION	TRAVEL TIME SECONDS	MTC POSITION	MOTOR DETAILS		SUPPLY	FEEDBACK FEATURES (NOTE 4)			
								CURRENT			POSITION	SLW	SENSOR	Limit
37	6	MILL HA DAMPER	11284-2211-2-208	425	120	20	R.H.	1.3	6.7	3 phase	2	NONE	4	
38	6	MILL TA DAMPER	10265-60-G1	300	85	20	STD	0.6	0.6	1 phase	1	NONE	4	
27	6	MILL SA DAMPER	10264-60-T-G1	75	85	40	STD	0.6	0.6	1 phase	1	NONE	4	
30	2	REHEAT PASS DAMPER	11289-2211-2-208	4000	120	20	R.H.	5.1	19.0	3 phase	2	-	4	
31	2	ECON PASS DAMPER	11288-2211-2-208	2500	120	20	R.H.	8.0	27.0	3 phase	2	-	4	
32	2	FD BLADE PITCH	10264-60-T-??	75	85	40	STD	0.6	0.6	1 phase	1	-	4	
34	36	MILL AUX AIR DAMPER	10264-60-T-G1-L2	75	80	40	STD	0.6	0.6	1 phase	1	-	4	
NOTE: EXISTING SPECIFICATIONS LISTED ABOVE WILL SERVE AS BASIS FOR NEW EQUIPMENT PROCUREMENT														
ABBREVIATIONS:														
HA - HOT PRIMARY AIR														
TA - TEMPERING AIR														
SA - SECONDARY AIR														
FD - FORCED DRAFT														
AUX - AUXILIARY														

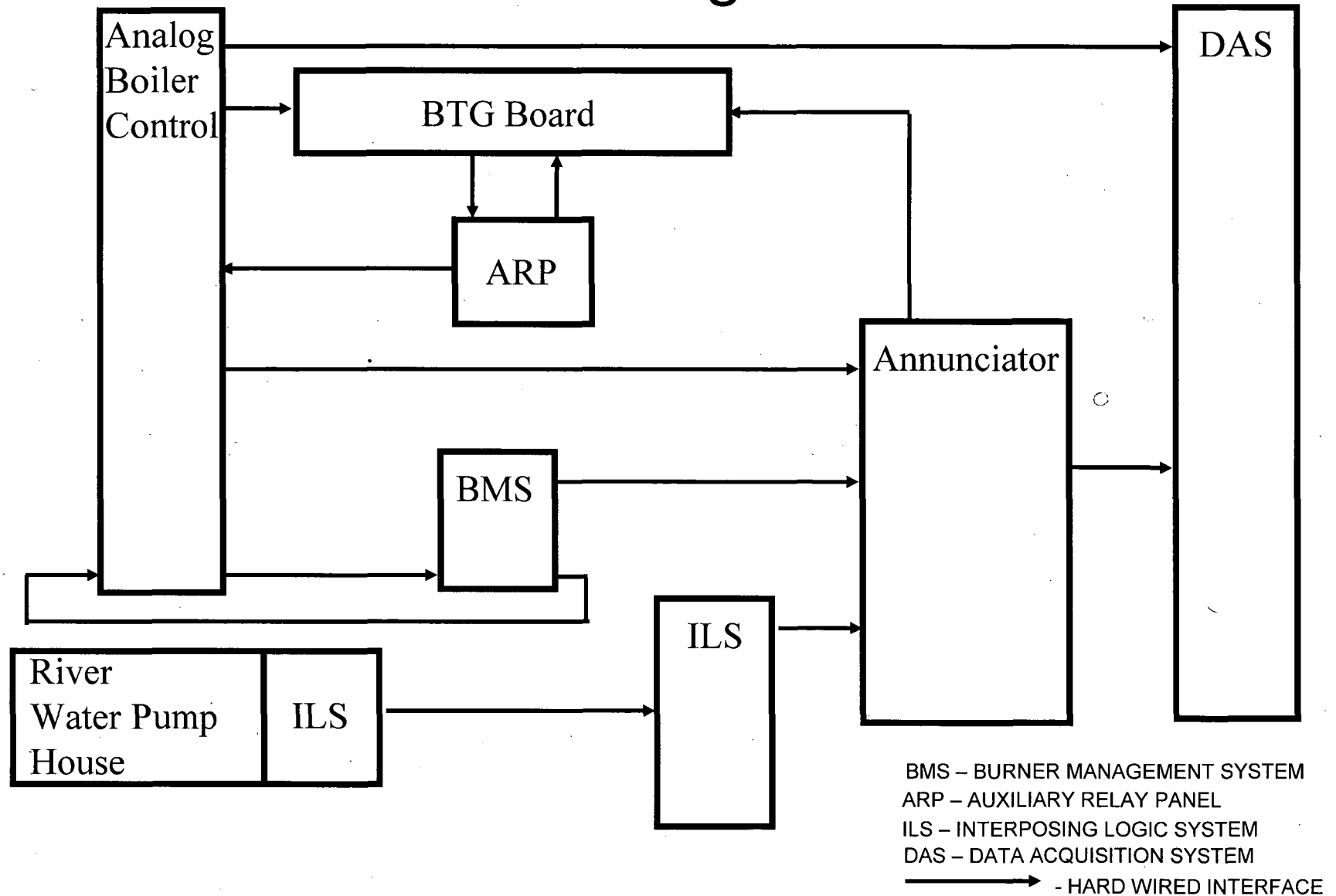
SGS - INTEGRATED CONTROL SYSTEM REPLACEMENT - SIGNAL CONVERTERS LIST

DESCRIPTION & SERVICE	QTY	EXISTING CATALOG NO	INPUT	OUTPUT	TRAVEL TIME	(NOTE2)		
						POSITION		LIMIT SWS
						SLW	SENSOR	
BFP RECIRC VALVE	3	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
MIN COND RECIRC FLOW	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
COND FLOW CONTROL VALVE	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
COND MU CONTROL VALVE	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
COND DRAW OFF CONTROL VALVE	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
COND STOR TANK VALVE	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
AH TEMP CONTROL	2	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
SH SPRAY VALVES	2	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
RH SPRAY VALVE	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
AUX STEAM PRESS CONTROL VLV	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
NOTE: EXISTING SPECIFICATIONS LISTED ABOVE WILL SERVE AS BASIS FOR NEW EQUIPMENT PROCUREMENT								
ABBREVIATIONS:								
BFP - BOILER FEED PUMP								
AH - AIR HEATER								
SH - SUPER HEAT								
RH - REHEAT								
AUX - AUXILIARY								
VLV - VALVE								

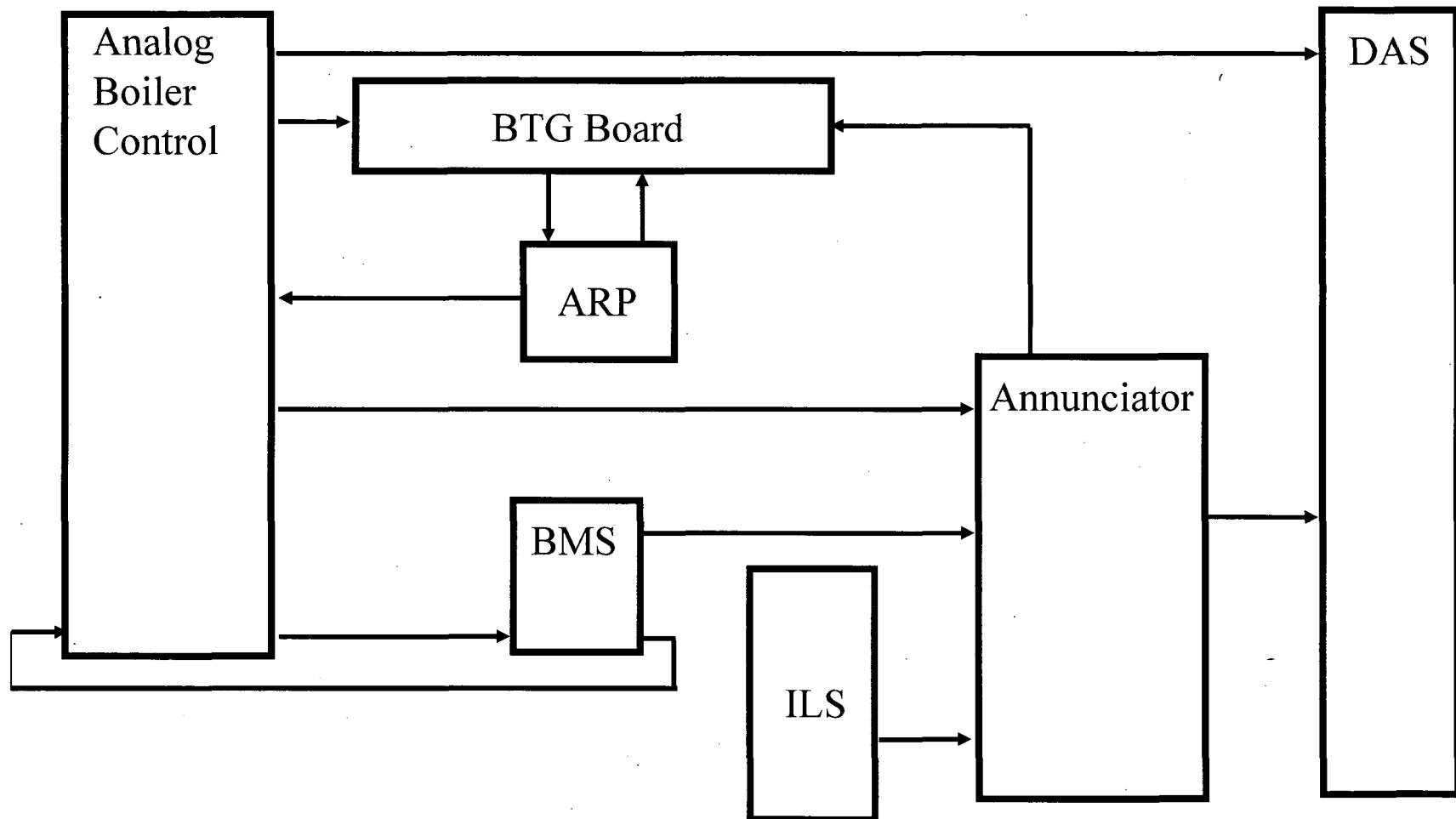
SGS - INTEGRATED CONTROL SYSTEM REPLACEMENT - TRANSMITTER LIST

DESCRIPTION & SERVICE	QTY	EXISTING CATALOG NO.	CALIBRATED RANGE	OUTPUT (NOTE 3)
MILL SEAL AIR DP	6	470-314-23-49-600-200	0-6"	4-20mA
PRIMARY AIR DUCT PRESSURE	1	471-114-24-49-600-200	0-60" H ₂ O	4-20mA
STM HDR FLOW	1		(0-300,000#/HR)	
CONDENSATE PUMP MIN FLOW	1	470-314-25-49-600-200	0-100" H ₂ O	4-20mA
BFP SUCTION FLOW	1	470-314-25-49-600-200	(0-8,000 GPM)	4-20mA
SECONDARY AIR FLOW	2	1912-3-50-0-00.00-03.00-03.00-200	0-4" H ₂ O	4-20mA
PRIMARY AIR FLOW	2	1912-3-50-0-00.00-05.00-05.00-200	0-5" H ₂ O	4-20mA
TEMPERING AIR FLOW	2	1912-3-50-0-00.00-03.00-03.00-200	0-3" H ₂ O	4-20mA
DEAERATOR STORAGE TANK LEVEL	1	470-314-23-49-600-200	+/- 7" H ₂ O	4-20mA
MILL FUEL LEVEL SOUTH END	5	1912-3-10-0-00.00-03.00-03.00-200	0-3" H ₂ O	0-40mA
CONDENSATE STORAGE TANK LEVEL	2	473-434-30-70-600-200	0-50 FT H ₂ O	0-40mA
CONDENSATE HOTWELL LEVEL	2	470-314-23-49-600-200	+/- 7.5" H ₂ O	4-20mA
AUX STM HDR	1	471-114-34-49-600-200	0-200PSIG	4-20mA
MILL FUEL LEVEL NORTH END	5	LATER	LATER	4-20mA
NOTE: EXISTING SPECIFICATIONS LISTED ABOVE WILL SERVE AS BASIS FOR NEW EQUIPMENT PROCUREMENT				
ABBREVIATIONS:				
AUX - AUXILIARY				
DP - DIFFERENTIAL PRESSURE				
STM - STEAM				
HDR - HEADER				

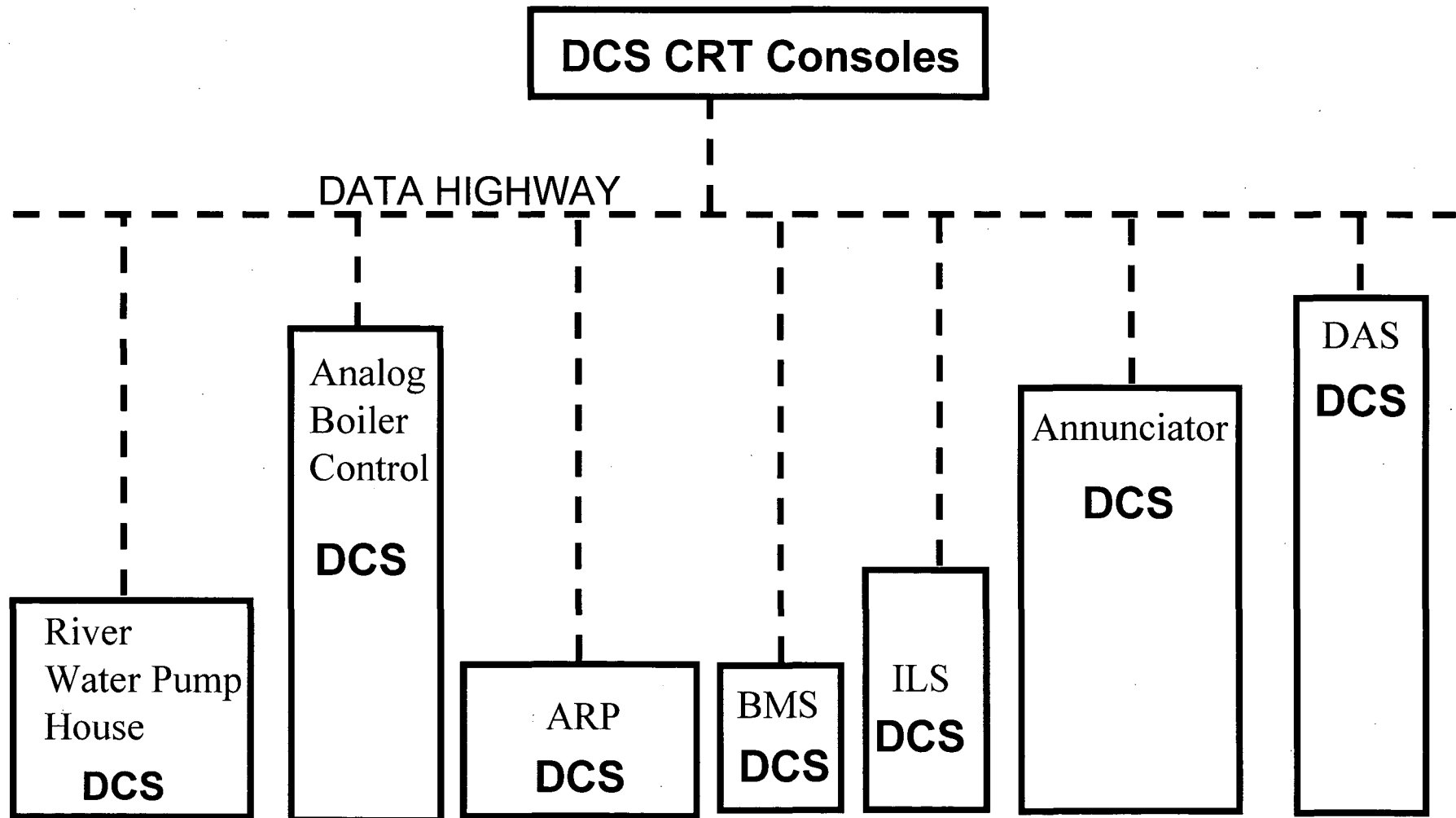
SGS Unit 1 – Existing Control Systems Block Diagram



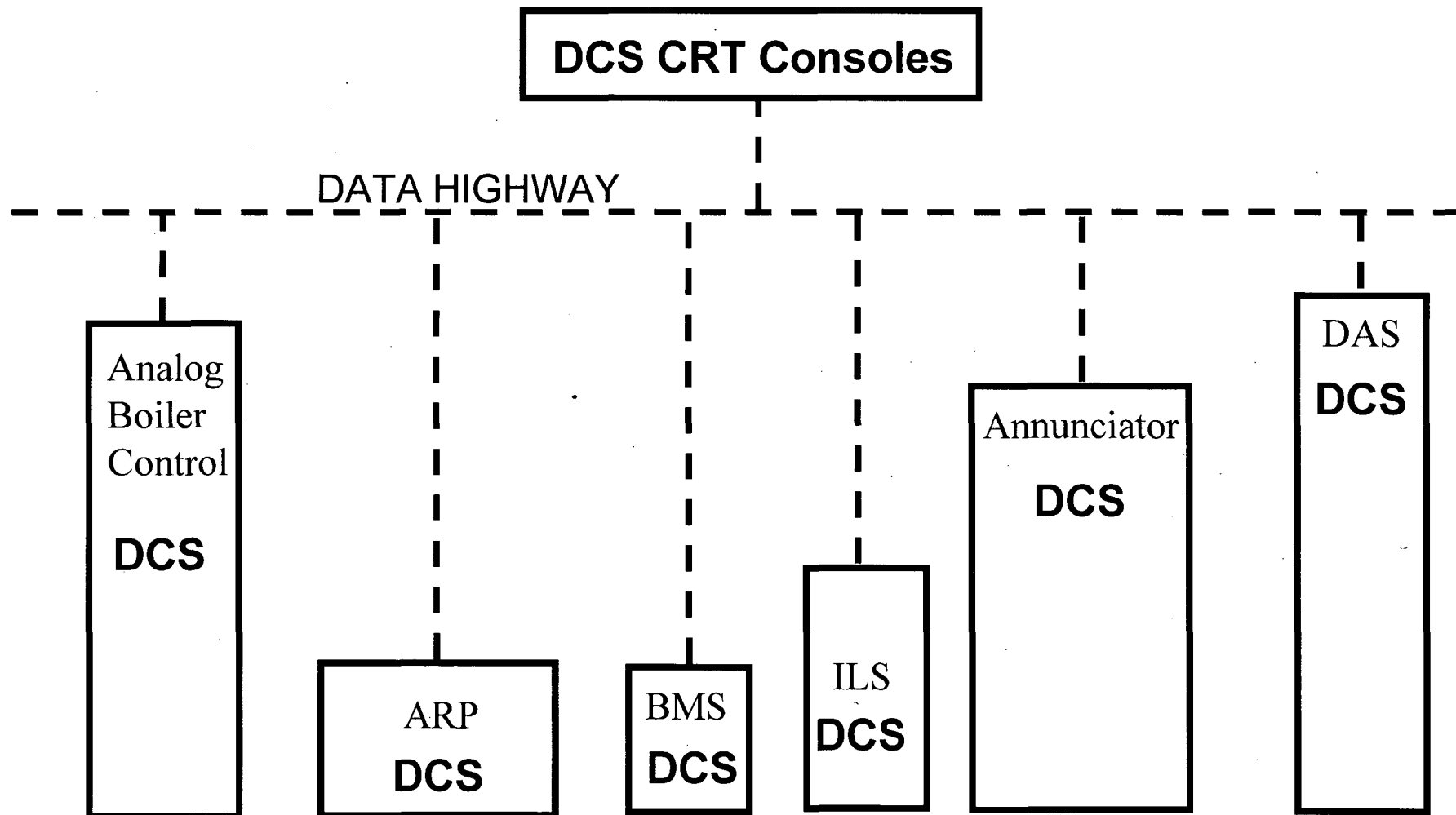
SGS Unit 2 – Existing Control Systems Block Diagram



SGS Unit 1 – New Distributed Control System (DCS) Block Diagram



SGS Unit 2 – New Distributed Control System (DCS) Block Diagram



SGS - INTEGRATED CONTROL SYSTEM REPLACEMENT -
CONTROL DRIVE LIST

ITEM NO.	QTY	DESCRIPTION & SERVICE	EXISTING CATALOG NO.	RATED TORQUE FT. LB	SHAFT ROTATION	TRAVEL TIME SECONDS	MTC POSITION	MOTOR DETAILS		SUPPLY	FEEDBACK FEATURES (NOTE 4)		
								CURRENT			POSITION		Limit
								FL	LR		SLW	SENSOR	Switch
37	6	MILL HA DAMPER	11284-2211-2-208	425	120	20	R.H.	1.3	6.7	3 phase	2	NONE	4
38	6	MILL TA DAMPER	10265-60-G1	300	85	20	STD	0.6	0.6	1 phase	1	NONE	4
27	6	MILL SA DAMPER	10264-60-T-G1	75	85	40	STD	0.6	0.6	1 phase	1	NONE	4
30	2	REHEAT PASS DAMPER	11289-2211-2-208	4000	120	20	R.H.	5.1	19.0	3 phase	2	-	4
31	2	ECON PASS DAMPER	11288-2211-2-208	2500	120	20	R.H.	8.0	27.0	3 phase	2	-	4
32	2	FD BLADE PITCH	10264-60-T-??	75	85	40	STD	0.6	0.6	1 phase	1	-	4
34	36	MILL AUX AIR DAMPER	10264-60-T-G1-L2	75	80	40	STD	0.6	0.6	1 phase	1	-	4
NOTE: EXISTING SPECIFICATIONS LISTED ABOVE WILL SERVE AS BASIS FOR NEW EQUIPMENT PROCUREMENT													
ABBREVIATIONS:													
HA - HOT PRIMARY AIR													
TA - TEMPERING AIR													
SA - SECONDARY AIR													
FD - FORCED DRAFT													
AUX - AUXILIARY													

SGS - INTEGRATED CONTOL SYSTEM REPLACEMENT - SIGNAL CONVERTERS LIST

DESCRIPTION & SERVICE	QTY	EXISTING CATALOG NO	INPUT	OUTPUT	TRAVEL TIME	(NOTE2)		
						POSITION		LIMIT SWS
						SLW	SENSOR	
BFP RECIRC VALVE	3	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
MIN COND RECIRC FLOW	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
COND FLOW CONTROL VALVE	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
COND MU CONTROL VALVE	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
COND DRAW OFF CONTROL VALVE	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
COND STOR TANK VALVE	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
AH TEMP CONTROL	2	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
SH SPRAY VALVES	2	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
RH SPRAY VALVE	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
AUX STEAM PRESS CONTROL VLV	1	10973-11	120VAC	3-15PSI	38 SEC	X	-	2
NOTE: EXISTING SPECIFICATIONS LISTED ABOVE WILL SERVE AS BASIS FOR NEW EQUIPMENT PROCUREMENT								
ABBREVIATIONS:								
BFP - BOILER FEED PUMP								
AH - AIR HEATER								
SH - SUPER HEAT								
RH - REHEAT								
AUX - AUXILIARY								
VLV - VALVE								

SGS - INTEGRATED CONTROL SYSTEM REPLACEMENT - TRANSMITTER LIST

DESCRIPTION & SERVICE	QTY	EXISTING CATALOG NO.	CALIBRATED RANGE	OUTPUT (NOTE 3)
MILL SEAL AIR DP	6	470-314-23-49-600-200	0-6"	4-20mA
PRIMARY AIR DUCT PRESSURE	1	471-114-24-49-600-200	0-60" H ₂ O	4-20mA
STM HDR FLOW	1		(0-300,000#/HR)	
CONDENSATE PUMP MIN FLOW	1	470-314-25-49-600-200	0-100" H ₂ O	4-20mA
BFP SUCTION FLOW	1	470-314-25-49-600-200	(0-8,000 GPM)	4-20mA
SECONDARY AIR FLOW	2	1912-3-50-0-00.00-03.00-03.00-200	0-4" H ₂ O	4-20mA
PRIMARY AIR FLOW	2	1912-3-50-0-00.00-05.00-05.00-200	0-5" H ₂ O	4-20mA
TEMPERING AIR FLOW	2	1912-3-50-0-00.00-03.00-03.00-200	0-3" H ₂ O	4-20mA
DEAERATOR STORAGE TANK LEVEL	1	470-314-23-49-600-200	+/- 7" H ₂ O	4-20mA
MILL FUEL LEVEL SOUTH END	5	1912-3-10-0-00.00-03.00-03.00-200	0-3" H ₂ O	0-40mA
CONDENSATE STORAGE TANK LEVEL	2	473-434-30-70-600-200	0-50 FT H ₂ O	0-40mA
CONDENSATE HOTWELL LEVEL	2	470-314-23-49-600-200	+/- 7.5" H ₂ O	4-20mA
AUX STM HDR	1	471-114-34-49-600-200	0-200PSIG	4-20mA
MILL FUEL LEVEL NORTH END	5	LATER	LATER	4-20mA
NOTE: EXISTING SPECIFICATIONS LISTED ABOVE WILL SERVE AS BASIS FOR NEW EQUIPMENT PROCUREMENT				
ABBREVIATIONS:				
AUX - AUXILIARY				
DP - DIFFERENTIAL PRESSURE				
STM - STEAM				
HDR - HEADER				