ARIEL PLAN ANALYSIS DOCUMENT (APAD) TEMPLATE

Actuary	Date
Actuarial Reviewer	Date



Plan analysis for the

PBGC Case #

PBGC Case Name

General APAD Guidelines

- Throughout this document, APAD GUIDELINES ARE in BOLD ITALIC.
- Changes done to the plan analysis or Ariel parameters due to data issues should be documented as such.
- Do not use the term "N/A"; define as either "Not Applicable" or "Not Available".
- Be consistent with terminology throughout APAD.
- Think about linking plan language to Ariel language.
- Outline cases where text from the plan document is not applied (i.e. plan practice or policy decision)
- Initiate a dialogue with the Integrator regarding more difficult provisions (eg. a change in plan anniversary or multiple types of service during different time periods).
- Incorporate examples of calculations under sections where describing the provision is especially difficult. List participants with issues.

Section 1 – Introduction

1.1 Documents provided

List Documents (plan summary, participant files, etc.).

• Any document listed in this section that will be also listed in table in section 1.2 following should have the version number (left most column) listed as a reference after document name and description.

1.2 Documents covered by the analysis

Version	Document Description	Effective Date of the	Adoption Date	Effective Date of the	Plan Anniversary	Phase-	Included or	Comments
		Document		Amendment	Date	in	Excluded	
1	Original Plan Text ABC	12/31/1979	01/01/1981	12/31/1979	10/01	100%	Included	
2	Amendment no. 1	04/07/1985	01/01/1986	04/07/1985	10/01	100%	Excluded	Doesn't not change plan provisions or benefit calculations

- The table is set up chronologically based on the effective date of the document and then effective date of the amendment.
- Version: numeric value identifying the amendments from original plan to last amendment analyzed in this document.
- In most cases the effective date of the document equals the effective date of the amendment except when a document contains future amendments. For example, a benefit rate schedule where the effective dates for the benefit rates may be different than the effective date of the document.
- An amendment may be excluded if it is not relevant to the benefit calculations or if it is already hard coded in Ariel (i.e. de minimis lump sums). In this case a comment should be inserted to that effect.
- The comment field should also be used to give details on multiple effective dates of amendment.

Section 2 – General Information

Pension Plan Level Information		
PBGC Case number		
Name of Plan		
Effective Date of the Original Plan		
Ariel Type of Plan (DB; Cash Balance; DB and Cash Balance; Cash Balance and Former DB; or Cash Balance with Grand- Fathering)		
Top Heavy Years		
Top Heavy Application (all or non-key employees)		
Benefit Freeze dates		
Notice of Intent to Termination (NOIT)		
Proposed DOPT contained in NOIT		
Notice of Determination (NOD)		
Termination Initiation Date		
Date of Trusteeship (DOTR)		
Date of Plan Termination (DOPT)		
Current/Related Employment Termination Required (yes/no)		
Definition of Disability (Undefined; Long Term Disability; or Eligible to Social Security)		
Plan Assets		
Excess Asset Distribution (employees/employer)		
Refund of employee mandatory contributions allowed (yes/no)		
Refund of employee voluntary contributions allowed (yes/no)		
SPARR Percentage		
Recovery Amount		
Group names		

- Initial group names: as identified by the actuary. This could change at the integration stage according to the benefit calculation requirements, available data and Ariel parameters.
- Current/Related Employment Termination Required (yes/no): used for XRA calculation.
- Definition of Disability: to define the plan's disability. This doesn't impact the MGB.



Employers / Facilities			
Employer Code Facility Code		Description	Business Closing Date

- Business Closing Date is used for XRA calculation.
- Facility will be used only if benefit calculations are related to specific locations or if they have different closing dates. Facilities and employers can be regrouped if they have similar provisions.

Payroll Amounts used in pension plan (check appropriate variables)		
Earned Salary		
W-2 Salary		
Bonus		
Commissions		
Employee Contribution		
Additional Contribution		
Hours Worked		
Pensionable Hours		
Hours Worked at Overtime		
Other Hours		

PBGC Rates	
Lump Sum Rates at DOPT	
Annuity Rates at DOPT	

Section 3 – Eligibility and Participation

3.1 Eligibility

- Thoroughly explain the condition(s) to participate in the plan including,
 - the category or type of employees eligible
 - age requirements (min/max; rounding)
 - service requirement

3.2 Date of participation

• Date of participation (i.e. anniversary date; DOH + 1 year, etc.)

3.3 Eligibility / Participation Service

- Service definition guidelines:
 - calculation method
 - rounding for service
 - decimals
 - *limits (minimum/maximum date; minimum/maximum age)*
 - actual commencement date (e.g.; DOH)
 - what breaks in service affect or do not affect the calculation (benefit freeze, rule of parity)
 - whether past service be accepted
 - if, following the non attainment of 1000 hour between DOH and DOH+1 year, Ariel should restart calculating the eligibility (Qualifying Year of Service) from the plan anniversary date following DOH+1 year.

Section 4 – Service

- 4.1 Vesting Service
- 4.2 Benefit Service (Credited Service)
- 4.3 Accrual Factor Service
- 4.4 Top Heavy Service
- 4.5 Other Service
- Service definition guidelines:
 - calculation method
 - rounding for service
 - decimals
 - *limits (minimum/maximum date; minimum/maximum age)*
 - actual commencement date (e.g.; DOH)
 - what breaks in service affect or do not affect the calculation (benefit freeze, rule of parity)
 - whether past service be accepted
 - *if the service is projected or not*
- Remember to consider and define maximum age. This can be defined under the Late Retirement Benefit in a plan document but not defined under service.
- Remember to include maximum service if any.
- Ariel can accept a service amount. If you are accepting a service amount it must be clearly stated and the corresponding Ariel field name included.
- Ariel will use the breaks loaded at conversion to adjust the service(s). Identify which services should be adjusted. The breaks loaded in Ariel should only include the period to be subtracted from the service(s).
- Indicate if eligibility service should be added to some of these services.

Section 5 – Retirement Dates

- 5.1 Normal Retirement Date
- 5.2 Latest Retirement Date
- 5.3 Early Unreduced Retirement Date
- 5.4 Early Retirement Date
- 5.5 Disability Retirement Date
- 5.6 Special Retirement Date (retirement windows)
- Examples of conditions would be: sums, age and/or service or status or sub-status (retired a/c disability).
- If a service is used as is or for a sum, it should be described or referenced to a service in Section 4.
- Retirement Date terminology should be consistent throughout the APAD.
- If provisions are different for active participants versus deferred participants, these should be bulleted under the appropriate Retirement Date section.
- If Earliest PBGC Retirement Date (EPRD) applies, please add a comment saying so under 5.4.

Section 6 – Adjustments

- 6.1 Early Retirement Adjustment
- 6.2 Late Retirement Adjustment
- 6.3 Disability Retirement Adjustment
- 6.4 415 IRS limit Early Retirement Adjustment

If DOPT is before the start of the 2002 plan year, use the following definition:

- From payment date to age 62:
 - Actuarial reduction to age 62
- From age 62 to Social Security retirement age
 - 5/9% per month for the first 36 months
 - 5/12% per month for each additional month before Social Security retirement age

If DOPT is on or after the start of the 2002 plan year, use the following language:

- No reduction from age 62 to age 65.
- For payment before age 62, lesser of the following:
 - Plan's early retirement reduction (i.e. Plan ERF at payment age / Plan ERF at 62)
 - Actuarial equivalent of limit at age 62 based on 5% interest and:
 - ➤ GAM83 (50%M / 50%F) if DOPT is in the plan year starting in 2002
 - GAR94 (50%M / 50%F) projected to 2002 if DOPT is after the 2002 plan year
- For payment after age 65, actuarial equivalence based on the lesser of the following:
 - Plan's interest and mortality used for late retirement adjustment
 - 5% interest and:
 - ➤ GAM83 (50%M / 50%F) if DOPT is in the plan year starting in 2002
 - GAR94 (50%M / 50%F) projected to 2002 if DOPT is after the 2002 plan year
- If a plan table applies, please submit it in electronic format to the Integrator with the APAD.
- Indicate separately the adjustment for active versus deferred (or other category, e.g.; a facility).
- Indicate if interpolation is used or not to calculate the rate.
- · Identify how the rate adjustment applies (i.e. complete months, exact days, etc.).
- Specify which assumptions or table to be used.



Initial Version

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- Specify the maximum adjustment if applicable. Specify up to which condition or retirement date/age the adjustment applies. •

Section 7 – Salary

7.1 Pensionable Earnings (for retirement benefit calculations)

• Identify which earnings are included in the pensionable earnings (e.g.; W-2, earned salary, bonus and/or commissions). Indicate any limit (min/max) amount.

7.2 401(a)(17) Limits

Year	401(a)(17) Limit
Pre-1990	\$200,000
1990	\$209,200
1991	\$222,220
1992	\$228,860
1993	\$235,840
1994	\$150,000
1995	\$150,000
1996	\$150,000
1997	\$160,000
1998	\$160,000
1999	\$160,000
2000	\$170,000
2001	\$170,000
2002	\$200,000
2003	\$200,000
2004	\$205,000

• The table should be modified based on your DOPT. Be aware the table may change in future versions due to plan amendments.

7.3 Other Earnings

- Possible Other Earnings may include those used to calculate a Social Security Benefit amount.
- 7.4 Service to annualize Salary
- Indicate what should be done in cases where not enough years of salaries are available or when there are incomplete years.
- Define or reference the service to annualize the salary.



Section 8 – Contributions

- 8.1 Mandatory Contributions and interest accumulation
- 8.2 Voluntary Contributions and interest accumulation

8.3 Cash Balance Account

- Pay Credits
- Interest Accumulation
- For Pay Credits specify:
 - Eligibility condition
 - Calculated, provided or calculated if non-provided
 - Formula (percentage of salary, fixed amount or percentage over a specific amount)
 - Posting frequency
 - Credited partial year
- Interest accumulation:
 - Specify the rate
 - · Accumulation method of current contributions / pay credits
 - Accumulation of contributions / cash balance account since last update

Section 9 – Retirement Benefits

9.1 Retirement Pension

- a) Normal Retirement Benefit:
- b) Accrued Benefit:

9.2 Early Retirement Pension

9.3 Cash Balance Formula

9.4 Supplemental Pension

9.5 Late Retirement Pension

- Participant works past NRD and retires immediately upon termination of employment:
- Participant works past NRD and retires at a later date:
- Participant terminates employment before NRD and retires after NRD:

9.6 Mandatory Contributions

Specify if the plan provides for an additional retirement benefit calculated using these contributions.

9.7 Disability Pension

- Disability pension to NRD:
- Normal Retirement benefit following attainment of NRD:
- 9.8 Top Heavy Pension
- Any value used in the Normal Retirement Benefit formula that is not defined elsewhere must be defined here.
 - For average earnings, you need to specify:
 - reference period (i.e. anniversary, calendar, etc.)
 - service used to select the earnings
 - · how to handle end period, start period, intermediate incomplete periods
 - how to handle calculation if less than required periods are available
 - an offset amount
 - short service factor
 - Covered Compensation
 - for Social Security Benefit, define the following variables:
 - Past Salary Projection percentage



- Future Salary Projection percentage
- National Average Wage Increase
- Cost of Living Increase
- National Average Wage Past 2 Years
- · Last Salary Age
- Bend Points (Lower)
- · Bend Points (Higher)
- Wage Base
- National Average Wage
- Cost of Living Adjustment
- Remember to include any maximum (other than 415) or minimum benefit amounts.
- If you have highly compensated employees remember you may need to calculate protected benefits at the end of the 1988 and/or 1993 plan years due to changes in the 401(a)(17) compensation limits.
- Use discretion when defining a benefit formula. It may be advantageous to use narrative and a mathematical formula.
- Provided pension amounts (for past service) can be used in the Normal Retirement Benefit formula.
- Provide assumptions for actuarial equivalent for cash balance conversion to an annuity.

Section 10 – 415 Limit

10.1 415 IRS limit on Lifetime Benefit

- *\$annual amount*
- Participation adjustment: Min[1; completed years of participation (min=1)/10]

10.2 415 IRS limit on Bridge Benefit

• The 415 IRS limit is dependent upon the DOPT of your plan. If required you must enter a table.

Section 11– Deferred Vested Benefits

11.1 Vesting Schedule

- a) Plan Schedule:
- **b)** Top Heavy Schedule:

11.2 Vested Benefit formula

- Include non-vested cash out provisions.
- Include if non-vested contributory participants are entitled to a refund of their contributions plus interest.

Section 12 – Pre and Post Retirement Death Benefit

- 12.1 Active participant with a spouse
- 12.2 Active participant without a spouse
- **12.3** Deferred participant with a spouse
- **12.4** Deferred participant without a spouse
- 12.5 Retired participant with a spouse
- 12.6 Retired participant without a spouse
- Be very clear; define all possible benefits (QPSA, FSSB, lump sum, etc.) and the necessary provisions.
- Specify the following items:
 - Participant's eligibility conditions (i.e. vesting, age, election for death benefit, etc.)
 - Payment start date based on which condition (i.e. age, marital status, etc.)
 - If payment to spouse should be adjusted by the charge
 - Specify minimums and/or maximums
 - Specify assumptions to be used in calculating the death benefits (lump sum, refund)

Section 13 – Forms of Payment

- **13.1** Normal form of pension without spouse
- 13.2 Normal form of pension with spouse
- **13.3** Plan Optional forms of pension already in payment
- **13.4** Form Conversion Factors
- Clearly define what age to use (nearest, attained).
- If a plan table applies, please submit it in electronic format to the Integrator with the APAD.
- Specify the form for each pension amount (basic, supplemental, etc...)
- Only plan optional forms currently in pay should be coded in Ariel.

Section 14 – Versions (Amendments)

- Only include Sections and Subsection that change benefits due to an amendment.
- Decrease in benefit should be identified for amendments affected by it, but not coded systematically in Ariel since this involves running additional calculations thus slowing down the performances.