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SENATE

RESOURCES

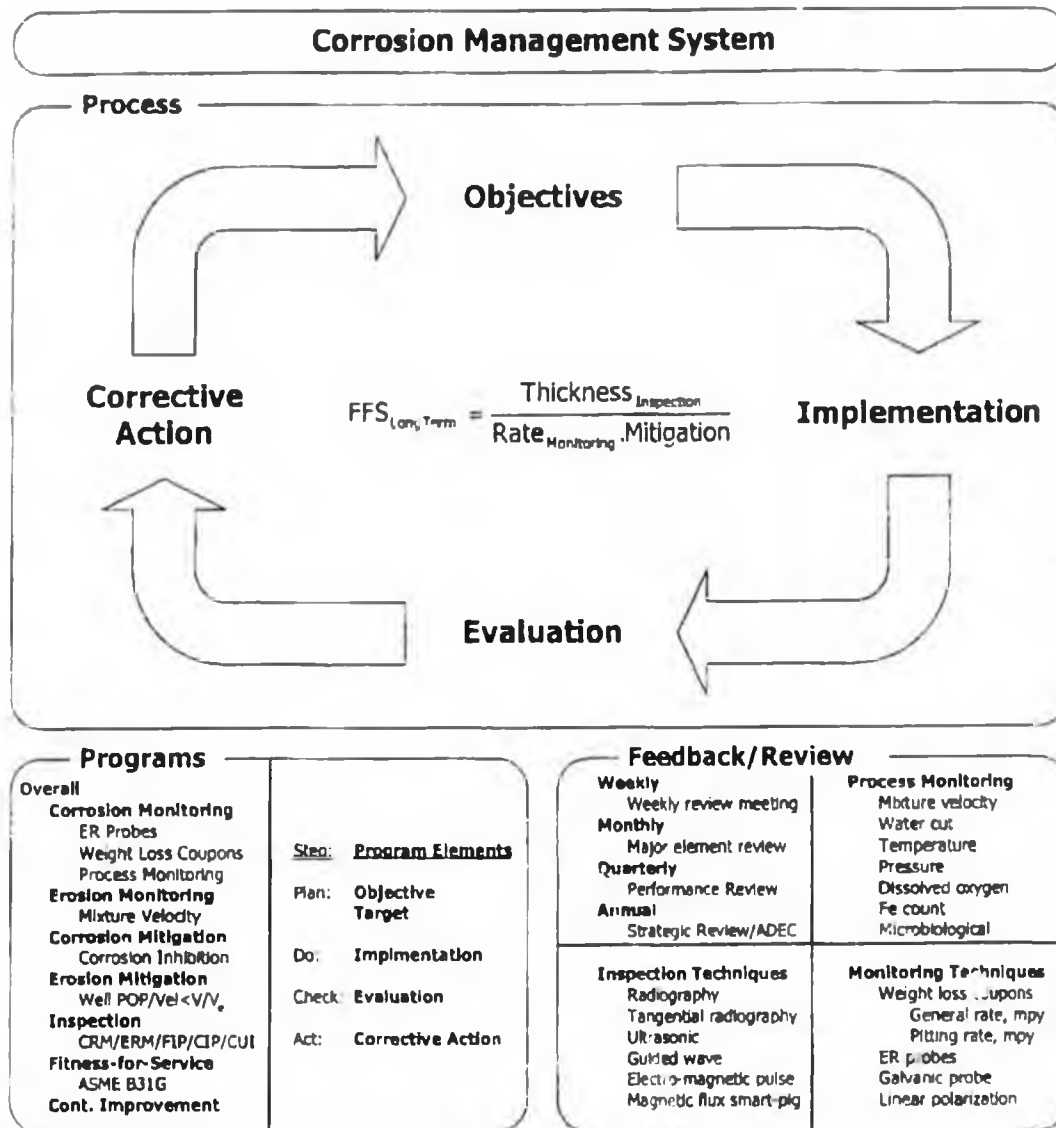


Figure 1 Overview of the Corrosion Management Process

### Appendix 3.1.2 Process

Within the overall Corrosion Management System, each specific program element, i.e. Corrosion Monitoring, Mitigation, Inspection and Fitness-For-Service, follow the classic TQM (Total Quality Management) process of 'plan-do-check-act' and consist of,

Step	Activity	Description
Plan	<b>Objective</b>	The program objective and purpose
	<b>Target</b>	The metric against which performance is assessed
Do	<b>Implementation</b>	Implementation plan to achieve objective
Check	<b>Evaluation</b>	Method to evaluate performance of plan against target
Act	<b>Corrective Action</b>	The action required to correct deviation from target

Table 1 Corrosion Management Process

### Appendix 3.1.3 Objectives and Targets

The objectives<sup>10</sup> for the CMS are set in order to support the delivery of the corporate objective and BPXA objectives described in the Foreword. For the purposes of the CMS these can be translated into the corrosion management objectives of;

- Eliminate corrosion and erosion related failures,
- Provide Fit-For-Service infrastructure to the end of field life.

Based on these objectives, individual targets are set for the corrosion, erosion, mitigation and inspection programs, which in combination are designed to deliver the objectives. The overall business objectives and individual program objectives and targets are described in detail in Table 9, Table 10 and Table 11.

For example, the weight loss coupons (WLC) in the 3-phase production system have a corrosion rate target of 2 mils per year (mpy). The monitoring program objective is to meet or beat this target, which means an actual WLC corrosion rate of 2 mpy or less ( $WLC \leq 2$  mpy).

### Appendix 3.1.4 Implementation

There are a number of different corrosion monitoring and inspection techniques, each of which has both advantages and disadvantages. The advantages and disadvantages, or strengths and weaknesses, make the results from an individual technique more or less applicable depending on the application circumstances.

Table 12, Table 13, and Table 14 summarize the main categories of corrosion monitoring, process monitoring, inspection techniques and briefly summarize relative strengths and weaknesses for different applications.

### Appendix 3.1.5 Evaluation

The elements of the CMS have to be applied to each system at GPB to reflect their applicability and efficacy. The corrosion and erosion monitoring, inspection and

<sup>10</sup> In addition to Charter Work Plan, some information is supplied to provide additional context and help in understanding BPXA corrosion management activities

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mitigation practices for the major services and equipment type are summarized in Table 15.

The results from each of the corrosion management programs are reviewed on a regular basis to provide feedback and to take any necessary corrective action based on deviation from target performance. In general, the major review cycles within the CMS are presented in Table 2.

<b>Review</b>	<b>Description</b>
Weekly	A weekly internal review meeting at which the latest corrosion monitoring, mitigation, inspection and process data are analyzed and reviewed, and any tactical changes implemented
Monthly	Monthly summary of the major elements of the program are reviewed for the need for longer term corrective action
Quarterly	Quarterly strategic performance review held in order to ensure that the implementation plan is delivering the strategic objectives
Annual	Annual program and strategy review designed to review the strategic direction of the program and review effectiveness of the current programs in delivering the strategic direction, e.g. Annual Report to ADEC

**Table 2 Corrosion Management Feedback Cycles**

Based on the results of the evaluation process, corrective action plans are developed and the overall management program and strategic direction are reviewed.

### **Appendix 3.1.6 Corrective Action**

Corrective actions provide feedback to the adjustment and setting of Objectives and Targets. Corrective actions can be broken down into five basic categories;

- Chemical Mitigation,
- Operational Intervention,
- Reduce Maximum Operating Pressure (Derate),
- Repair/Replacement,
- Abandon or Remove from Service.

Chemical mitigation is discussed in detail in Section D. Operational intervention centers on the GPB Velocity Management Program that is designed to control internal mixture velocity below target values dependent on equipment type, water cut and line size. Repair/replacement programs are driven by the inspection findings and include mechanical sleeves, pipe work refurbishment, and pipeline replacement.

## **Appendix 3.2 Corrosion and Inspection Data Management**

In order to deliver a comprehensive corrosion management program and manage the extensive corrosion monitoring and inspection activity, it is necessary to have an active and structured electronic database.

With the introduction of single-operatorship at Greater Prudhoe Bay one of the major problems faced by the CIC Group was the integration of two historical data sets for inspection, corrosion monitoring and corrosion mitigation information.

There has been a significant investment in resources in order to bring together these two different histories from incompatible databases based on early 1990's technology.

### **Appendix 3.2.1 MIMIR Database**

The database development effort has involved a dedicated team of software developers and also significant resources from within the CIC Group. The program is currently a "work in progress" and in 2005 BP/CIC will continue work on the development of chemical management, electronic data recording, tank and vessel, and standard reporting modules.

Users of the system are provided two primary methods for accessing data stored in the database. The first is a custom user interface written in Microsoft Visual Basic<sup>®</sup>, and the second is through ad-hoc data query tools such as BrioQuery<sup>®</sup> and BusinessObjects<sup>®</sup> which allow free-form SQL<sup>®</sup> access to the data.

Checks for data integrity are provided at a number of different levels including error checking at the point of data capture and data entry, regular reviews of data quality, and data entry rules within the database.

The data is continuously monitored for integrity, quality and consistency; as a consequence any errors detected are corrected as they are found. In addition, as better analysis tools become available through further integration then records are amended to reflect the improved level of analysis.

As a result of the ongoing quality effort and the tracking of production/service changes, this is a 'live' database and therefore as the system changes then the records returned will change. The following are some of reasons why returned values change through time,

**Quality Control and Audit** A fundamental design philosophy for the database was that errors should be corrected through time as they are discovered. Therefore as the database is used and the quality control rules and procedures applied, data-entry, translation and record-keeping errors are eliminated.

**Equipment Service Changes** The database tracks active, in or out-of-use equipment, and equipment service changes. As a piece of equipment moves through different services and different status, then the data in the database tracks the equipment status.

**Transition Issues** As noted above, the two historical databases, heritage East and heritage West, were incompatible with very different structures and data fields. Therefore these have had to be translated to the new system. As the quality control and audit tools are applied to the translated data, error and mistranslations are removed.

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**Time** The database is in active use with data being added everyday, given that there is sometimes a time delay between the reporting date and entry date then the data totals can and do change.

Table 3 gives an illustration of the number of records and the rate at which those records are accumulated on an annual basis in the database. The table clearly shows the level of complexity and volume of data involved in managing the corrosion programs at GPB.

In addition, the table also shows that the range and types of information being gathered is being improved through time to enable better overall corrosion management at the GPB. The most notable examples of this increasing range of coverage of the corrosion and inspection database is the inclusion of the production and injection data, the introduction of chemical usage data and the long term storage of ER probe data.

<b>Data Record</b>	<b>Unit</b>	<b>Records</b>	<b>#/year</b>	<b>History</b>
Weight loss coupons	10 <sup>6</sup>	0.2	0.01	20+ years
ER probes readings	10 <sup>6</sup>	1.7	0.4	2½ years
Equipment	10 <sup>3</sup>	28	-	-
Inspection locations	10 <sup>6</sup>	0.6	.07	-
Inspection records	10 <sup>6</sup>	1.2	0.1	~13 years
Chemical injection	10 <sup>3</sup>	52	22	2½ years
Production rates	10 <sup>6</sup>	8.3	0.5	~15 years
Injection rates	10 <sup>6</sup>	2.0	0.2	~12 years

**Table 3 Database Record Accumulation Rate**

### Appendix 3.2.2 Historical Data

The small differences in data between Annual Reports reflect the movement of lines into and out of service, the addition or abandonment of equipment, and the addition or removal of corrosion access fittings to the program. The historical data for prior years has been updated to reflect the current equipment inventory.

### Appendix 3.3 Corrosion Management Context

The following sections are provided to lend context to the current year results.

#### Appendix 3.3.1 ER Probe and Corrosion Inhibitor Response

This section describes, by example, the methodology by which corrosion inhibitor concentration is increased as a result of corrosion monitoring through the use of ER probes. ER probes are in use across GPB on the large diameter 3-phase production flow lines.

Figure 2 and Table 4 illustrate the use of ER probes in managing changing corrosion conditions in a large diameter flow lines. Figure 2 shows the ER probe readings and derived corrosion rates, over a period of approximately 10 months in 2003. For the first 10 weeks the measured corrosion rate is bordering on 2 mpy and a 5% increase in CI is implemented. In early February the existing ER probe was replaced due to data quality issues. In mid March another increase of CI was implemented based on ER probe corrosion rate. During April and part of May, the CR still exceeded the target and two additional CI increases were implemented. Finally in mid-May, the CR falls below the 2 mpy target and the CI remains at the increased concentration.

<b>Time Period</b>	<b>Comments</b>
14-Jan	Probe placed on watch list
14-Jan to Feb 11	Probe at or near 2 mpy, 5% increase in pad CI target
14-Feb	Poor data quality, ER probe replaced.
18-Feb to 21-Mar	Probe continues to show rate >2mpy, 10% increase in pad CI target
21-Mar to 30 Apr	Probe continues to show rate >2mpy, 10% increase in pad CI target
01-May to 01-Oct	Probe shows rate <2mpy, No adjustments to CI target

**Table 4 Corrosion Inhibitor Concentration vs. Corrosion Rate**

## Appendix 3 – Corrosion Management System

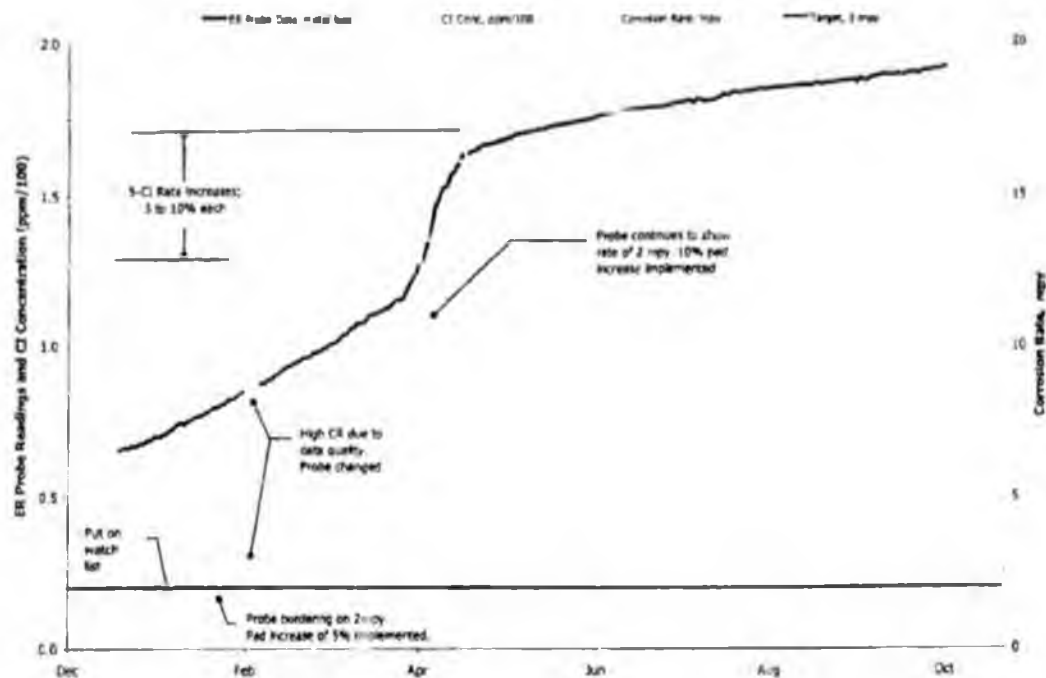


Figure 2 Corrosion Inhibitor Concentration vs. Corrosion Rate

### Appendix 3.3.2 Corrosion Inhibitor Development

The development of new corrosion inhibitors starts in the research and development laboratories of the chemical suppliers where potential products are tested for effectiveness under a range of conditions designed to simulate production fluids. Once these preliminary test chemistries have passed the laboratory screening process, the promising products are tested under field conditions using dedicated test facilities at GPB. The test process is summarized in Table 5.

In 2003, a new standardized protocol for well line testing was developed. Approximately ten new products are tested each quarter on a small scale test using an individual well line with each test lasting ~2 days and using approximately 5 gallons of the corrosion inhibitor under evaluation. Products that successfully pass the well line test program are then considered for a large-scale field trial.

The large-scale field trial involves converting between one and three well pads to the test product for 90 days and using 20-40,000 gallons of test chemical. This enables corrosion probe, coupon, and inspection data to be generated to verify the test product's effectiveness as a corrosion inhibitor. The large-scale field trial also allows assessment of the impact of the product on oil separation and stabilization process. Progress is being made in developing a new, standardized protocol for more rapid verification of a product's effectiveness as a corrosion inhibitor.

Location	Test	Description
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Location	Test	Description
Laboratory	Wheel-box Test	Performance of new potential corrosion inhibitor actives is compared to high performing actives. The test conditions simulate GPB and the test is run for 24 hours. Performance is determined by coupon weight loss.
	Kettle Test	This investigates the ability of an inhibitor formulation to partition from an oil phase into a brine phase under stagnant conditions. Test duration is 16 hours and corrosion rate is determined by linear polarization resistance (LPR) probes.
	HP Autoclave	This method determines the performance of inhibitors under high pressure and high temperature conditions. Monitoring method is by either coupon weight loss measurements or LPR. Test duration varies from 1 to 7 days.
	Jet Impingement	A once-through jet impingement configuration evaluates the performance of an inhibitor formulation under extremely high shear conditions. The persistency of the inhibitor film can also be determined. Test duration is one hour and corrosion rate is determined by LPR measurements.
	Flow Loop Test	The ultimate laboratory scale test that simulates temperature, pressure and flow conditions including velocity and water cut. Typical test duration is 24 hours and corrosion rate is determined by LPR measurements.
Field	Well Line Test	Dedicated test well lines are used at GPB as the first step in the field-testing process. Typically 5 gals of chemical used with a test duration of 2 days.
	Large Scale Test	1 to 3 well pads using 20-40,000 gallons of corrosion inhibitor with a test duration of 90+ days. Allows the evaluation of corrosion inhibitor performance by ER, WLC, and inspection, as well as impact of product on separation plant performance.
	Evaluation	Products are evaluated against both technical performance and cost effectiveness criteria in order to assess if there is an overall improvement in performance.
GPB	Implementation	Once a decision has been made to convert the field to a new product, additional precautions are taken with additional corrosion monitoring and plant performance evaluations in order to assure product efficacy.

Table 5 Summary Description of the Typical Test Program Components

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As an example, the ER probe results from a typical cross-country flow line test are shown in Table 6 and are summarized in Figure 3. Based on these data, the test chemical in this example was not cost effective and therefore was not utilized across the field.

Status	Chemical	Conc. ppm	CR, mpy	Notes/Comments
Baseline	Incumbent	130	0.2	
Stage 1	Test	150	8.1	Even at a higher dose rate the test chemical was unable to inhibit corrosion to the same level as the incumbent.
Stage 2	Test	170	2.0	Reduces corrosion rate.
Stage 3	Test	190	0.8	Dose rate was increased in order to achieve the same level of corrosion control as the incumbent. At this increased level of corrosion inhibition the test product was uneconomic and the test was terminated.
Return	Incumbent	130	0.1	Re-inject the incumbent product and corrosion rates return to the same level as those prior to the test.

Table 6 Flow line Test Program Result Summary

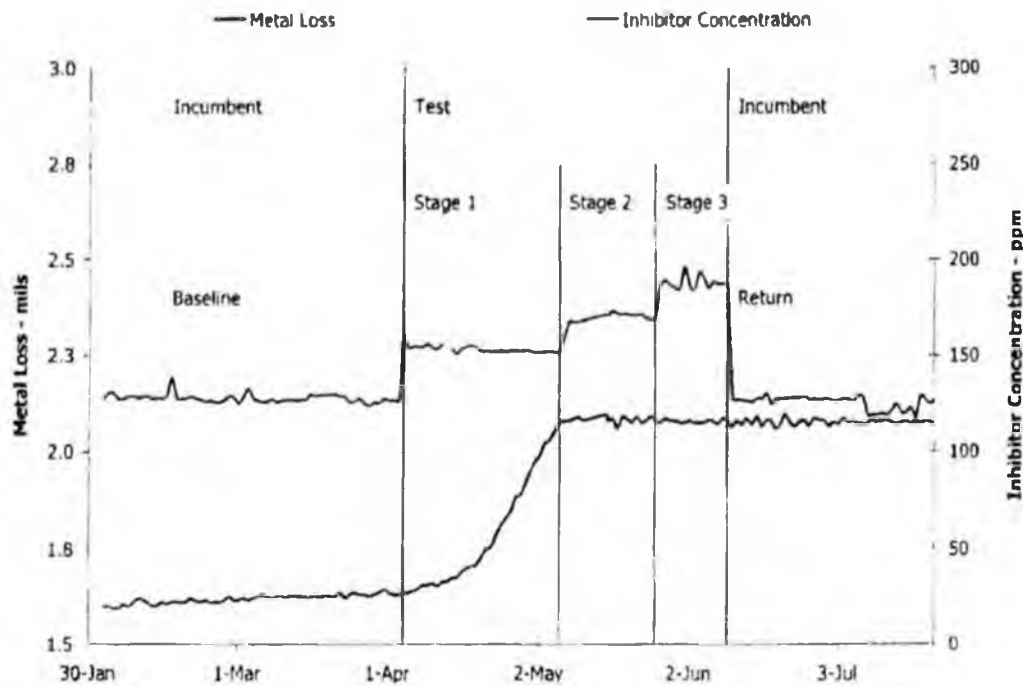


Figure 3 ER Probe Chemical Optimization Test

A second example, utilizes the output from the weight loss coupon program. This example from a test performed in 2001, demonstrates the need/value of multiple monitoring techniques when evaluating corrosion inhibitor performance. The trial product was tested for a 90-day period with no negative response observed by the ER probes. However, after the 90-day test period the corrosion coupons were pulled and showed relatively high general corrosion and pitting rates - see Figure 4. The product evaluated was a failure and the incumbent product was re-instated based on the coupon results. Corrosion inhibitor tests use all the monitoring tools available such as corrosion probes, coupons, and inspection data to determine corrosion control performance. In addition, the corrosion inhibitor is evaluated for plant production performance to show compatibility with the separation process.

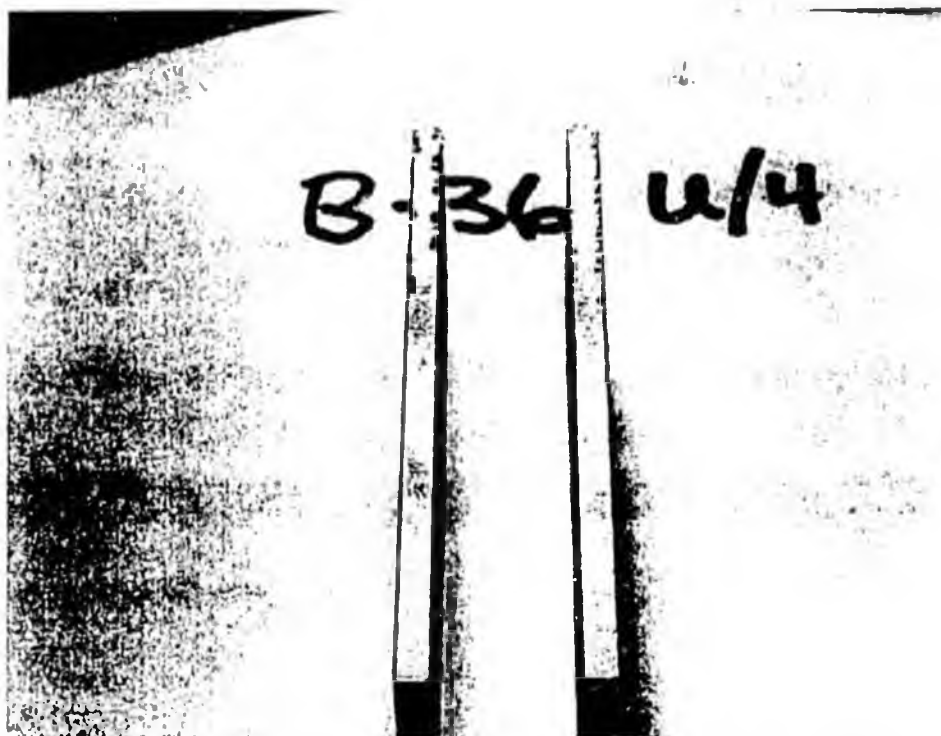


Figure 4 Corrosion coupons pulled after an 'unsuccessful' chemical trial

### Appendix 3.3.3 Internal Inspection Program - Scope

This section summarizes the scope and criteria used to determine the frequency of inspection for the internal corrosion inspection program. The over-riding factor in determining inspection intervals is the purpose of inspection based on a combination of equipment condition, corrosion rate, and operating environment. The internal inspection program is sub-divided into four elements, each with a separate purpose and therefore frequency of inspection:

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**CRM - Corrosion Rate Monitoring:** The goal of this program is to detect active corrosion in support of corrosion control activities, primarily the chemical inhibition program. The data are complimentary to other monitoring data, such as corrosion probes and corrosion coupons. As the primary aim is to determine when corrosion occurs, this program is of fixed scope at fixed inspection intervals. For a typical cross-country pipeline, the CRM program includes up to 40 inspection locations which include examples of all locations susceptible to corrosion, such as elbows, girth welds, long seam welds, bottom of lines sections, etc. These locations are each inspected twice per year. The inspections are staggered, with half the set being completed in the 1st calendar quarter and half in the 2nd. These are repeated in the 3rd and 4th quarters, respectively. Therefore, information regarding the level of active corrosion (or lack of) in a pipeline is generated every 3 months. The CRM program covers all cross-country pipelines in corrosive service.

**ERM - Erosion Rate Monitoring:** The purpose of this program is similar to the CRM but is aimed at monitoring erosion activity. As this damage mechanism is driven by production variables, i.e. production rates and solids loading, it is driven by 'triggers', such as velocity limits, well work, etc. If such triggers are exceeded, inspections are performed on a monthly to quarterly basis until confidence is gained that erosion is not occurring.

**FIP - Frequent Inspection Program:** The aim of this program is to manage mechanical integrity at locations where significant corrosion damage is detected. Locations are added to the FIP if they are approaching repair or derate criteria or if unusually high corrosion or erosion rates are detected. As the name implies, inspections are performed frequently until the item is repaired, replaced, derated, taken out of service, or corrosion/erosion rates reduced. The inspection interval varies, depending on how close the location is to repair/derate and the rate of corrosion but does not exceed 1 year. All equipment is covered by the FIP.

**CIP - Comprehensive Integrity Program:** This is an annual program and is aimed at detecting new corrosion mechanisms and new locations of corrosion as well as monitoring damage at known locations. The CIP therefore provides an assessment of the extent of degradation and the fitness-for-service. All equipment is covered by the CIP, although not all equipment is inspected annually.

The scope of the internal inspection program is relatively constant at approximately 60,000 inspection items per year. This includes both field and facility inspections.

### Appendix 3.3.4 Corrosion Under Insulation

Corrosion under insulation is primarily associated with water ingress into the pipeline thermal insulation, in particular, at the field-applied insulation joints (weld packs).

The pipelines are generally uncoated carbon steel and are therefore vulnerable to external corrosion under the insulation (CUI) if water comes into contact with the pipe surface. The pipelines are constructed from either single or double joints (40 - 80 ft. long) with a shop-applied polyurethane insulation protected with a galvanized wrapping. The area around the girth welds are insulated with 'weld packs.' The detailed design of weld packs varies but all are prone to water ingress.

Table 7 shows the distribution of Insulation joint types based on a sample of ~50,000 locations. For each specified joint type, there is an associated CUI incident rate. These data show there is as much variability in the CUI incident rate between the insulation joint configurations as there is associated with the service type. This suggests that the joint configuration and insulation joint location, along with age, have as much influence on the occurrence of external corrosion at weld-packs compared to the service type and operating temperature.

GPB Joint Design	Joint Type Freq	CUI Incident Rate
Anchor Joint	4.4%	2.8%
Damaged Insul	8.4%	2.0%
Damaged Weld Pack Insul	0.1%	2.4%
EII Anchor Joint	0.1%	6.8%
EII Bottom Elev	3.6%	6.3%
EII Bottom Elev Saddle	0.5%	9.9%
EII Horiz Saddle	1.0%	8.4%
EII Horizontal	10.1%	3.8%
EII Top Elev	2.6%	1.3%
EII Top Elev Saddle	0.3%	4.5%
Mid-Span Weld Pack	56.4%	1.8%
Saddle Joint	11.1%	3.6%
Vertical Joint	0.1%	5.3%
Wall Penetration	1.2%	1.4%
<b>Average CUI Incident Rate</b>		<b>2.5%</b>

Table 7 CUI Incident Rate by Joint Type

The main challenge in managing CUI is the detection of the external corrosion damage. Water ingress into the weld packs is a random process and therefore it is difficult to apply highly specific rules to target the inspection program.

### Appendix 3.3.5 Fitness for Service Assessment

The basic fitness-for-service criterion used by BPXA is ANSI/ASME B31G. The base document is the modified B31G, PRC 3-805, which is augmented with additional

requirements defined in BP specification SPC-PP-00090, "Evaluation and Repair of Corroded Piping Systems".

Application of fitness-for-service is best illustrated by the following example and discussion using a typical 24" diameter, 375-mil wall thickness cross-country low-pressure (LP) flow line. The average depth of damage for this example is approximately 24% or 90 mils and average corrosion network length of 8.9". In calculating the corrosion rate to achieve this depth of damage, it was assumed that the corrosion rate is linear since the beginning of field life in 1977.

Figure 5 summarizes the dependence of Maximum Allowable Operating Pressure (MAOP) with the remaining wall thickness of a section of flow line based on ANSI/ASME B31G and is intended to show the multiple-layers of protection to the environment provided by the current fitness-for-service criteria. At the original wall thickness of 375 mils, the example flow line has a B31G calculated MAOP of ~1400 psi. As the wall thickness is reduced by corrosion, this pressure containment capacity is also reduced.

Table 8 shows the MAOP for various wall thicknesses starting from the original wall thickness of 375 mils. It can be seen that the repair criterion used provide a significant level of conservatism over the minimum wall thickness required to retain the maximum operating pressure. In addition, high-level over-pressure protection provides additional protection over the normal operating pressure.

In addition to the depth of damage discussed, there are a number of other considerations that have to be accounted for when assessing fitness-for-service. Some of the concerns are,

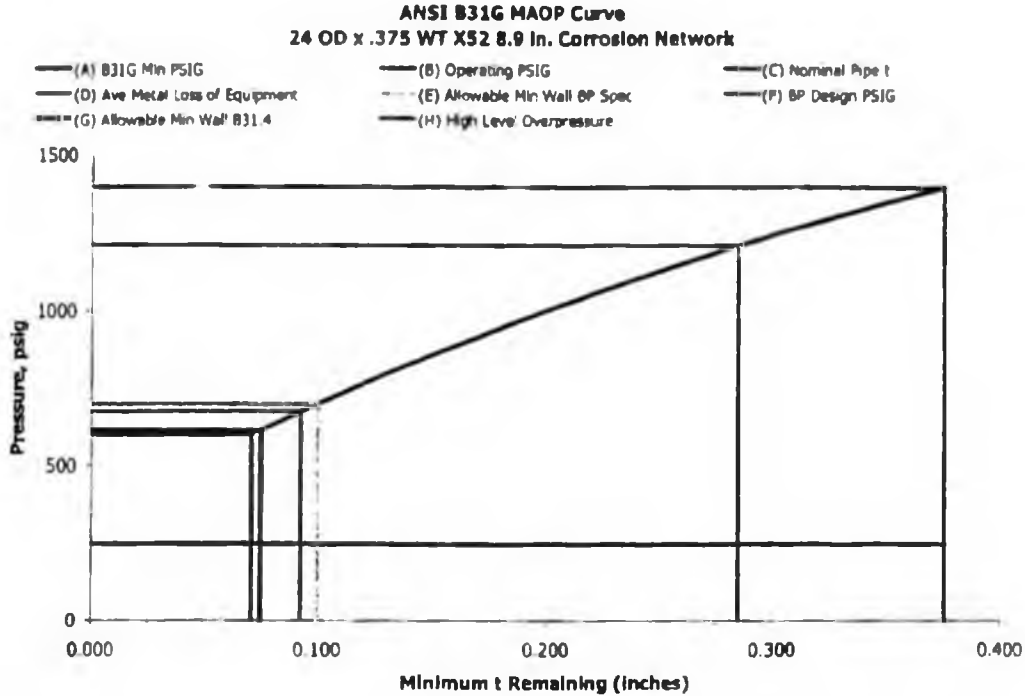
**Localized/Pitting Corrosion** Localized/pitting corrosion consisting of clearly defined relatively isolated regions of metal loss. The axial and circumferential extent of such regions needs to be determined and any potential areas of interaction where there is axial overlap between pitting regions.

**General/Uniform Corrosion** General corrosion consisting of widespread corrosion between islands of original material, again, as with pitting corrosion, the axial and circumferential extent of such regions need to be determined. The extent of damage is determined by the boundaries of good or non-corroded material surrounding the damaged area.

**Interaction** If more than one areas of metal loss exist in close proximity, the possible interaction between these corroded areas needs to be considered. The worst case for interaction of several corroded areas is that a composite of all the profiles within a given metal-loss area needs to be considered.

**Critical Dimensions** The critical dimensions of metal loss, whether internal or external corrosion damage, need to be determined depending on the corrosion damage morphology described above. The most important dimensions being, the axial or longitudinal length, and the maximum depth of damage.

**Evaluation of Corroded Pipe** The evaluation of corroded pipe involves determining the remaining strength and safe operating pressure on the basis of the overall axial length, circumferential extent, and maximum depth of the corroded area.



Legend	Description/Comments
(A) B31G Min PSIG	The relationship between maximum allowable operating pressure, MAOP, as given by B31G and the remaining wall thickness
(B) Operating PSIG	The normal operating pressure for a typical low pressure common line or flow line (CL/LDF)
(C) Nominal Pipe t	The original nominal pipe wall thickness which for this example is 0.375" (375 mils) as is the case for many of the flow lines at GPB
(D) Ave Metal Loss of Equipment	The minimum wall thickness, 0.100", which is calculated using the specification, SFC-PP-00090 for the average level of corroded pipe section. The location of or below this value is additional regardless of the calculated MAOP
(E) Allowable Min Wall BP Spec	The original design pressure that the pipe wall thickness was designed to retain
(F) BP Design PSIG	The original design pressure that the pipe wall thickness was designed to retain
(G) Allowable Min Wall B31.4	Allowable minimum wall thickness under B31 below which a repair is mandated by code
(H) High Level P protection	High level over-pressure protection for the LP systems as either a pressure switch or the PSV's on the separator/slugg-catcher

Figure 5 MAOP versus Remaining Wall Thickness

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Step	t, mils	MAOP	Curve	Description
1	375	1395	(C)	As constructed pipe condition with no corrosion or degradation of wall thickness
	100	760	(E)	The BP repair criterion for BP Specification SPC-PP-00090 is 100 mils with an MAOP of 760 ps. This repair criterion is more conservative than the design pressure which is 815 or 839 ps. The minimum wall thickness defined by the B31G piping standard requires additional protection.
4	95	675	(F)	The original system design pressure
5	75	614	(G)	The minimum wall thickness allowed under B31G for this application which is 80% wall loss regardless of pressure
6	71	600	(H)	High level over-pressure protection for the low pressure production system at Greater Prudhoe Bay
7		250	(B)	The normal operating pressure for the system

Table 8 Thickness, MAOP Correlation

Figure 6 illustrates the FFS envelop for a combination of depth and length of defect as defined in BP Specification SPC-PP-00090. As can be seen from the curve, the criteria for allowable operating service condition is more conservative than the industry standard at the low end of the remaining wall thickness. This conservatism reflects two issues, (a) the need to provide a margin for error in the determination of wall thickness and corrosion rate, and hence remaining life, and (b) the decreased accuracy of the NDE techniques in use at a wall thickness of less 100 mils.

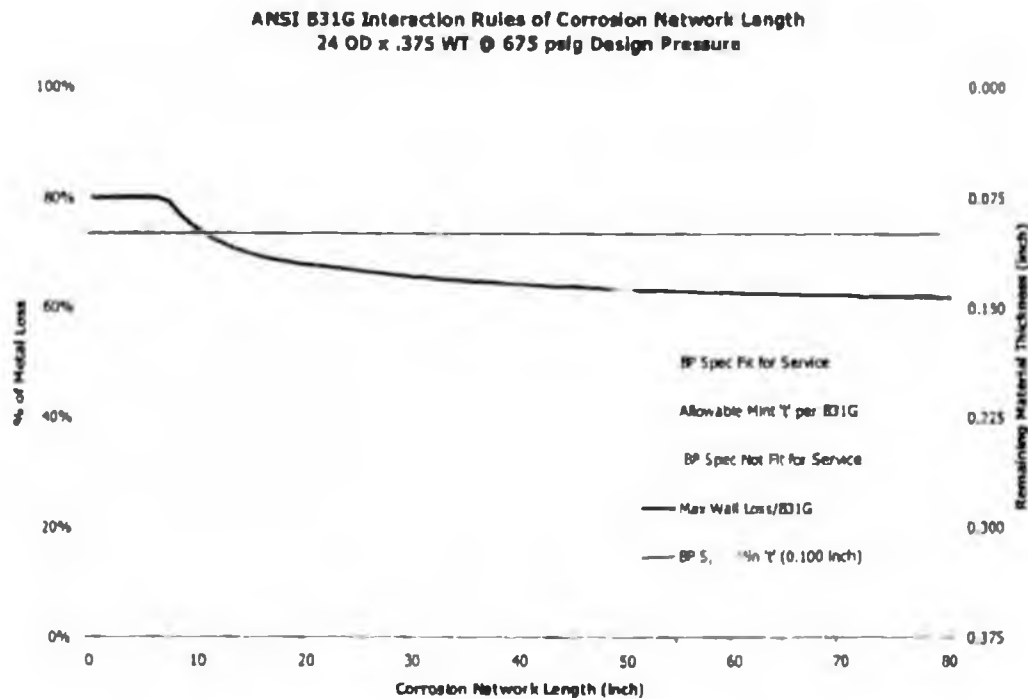


Figure 6 Fitness-for-Service Envelope Based on BP SPC-PP-00090

In addition, repairs are typically scheduled when the corrosion damage has reached 105% of the repair criteria. This additional conservatism is in order to allow repairs to be planned rather than requiring an immediate plant shutdown.

In summary, the current equipment FFS assessment for piping accounts for two major elements,

- Remaining strength of material is sufficient to contain internal pressure as calculated by ANSI/ASME B31G/modified B31G methodology,
- Minimum thickness, regardless of pressure retaining calculation, is equal to the greater of 0.100 inch or 20% remaining wall thickness.

whichever is the greater remaining wall thickness of the assessment criteria. These same criteria are applied to remaining flow and well lines with the appropriate characteristics and parameters.

### Appendix 3.3.6 In-line Inspection

In-line inspection (ILI) tools, or smart pigs, are used at GPB where pigging facilities and process environment allow for technical and cost effective performance within the capabilities of the instruments. Magnetic flux leakage (MFL) type tools are the most commonly used by BPXA.

It is important to note that because the vast majority of the cross-country flow lines are above ground, the value of ILI data are considerably lessened compared to buried or underground systems. The primary value for GPB is in the initial identification and

location of damaged locations within a pipeline system. Having initially identified the location of damaged areas, the long-term integrity, pipeline condition and current corrosion rate, of the flow line can be more effectively managed through the use of targeted manual NDE techniques.

Having established the condition and location of damaged sections of line the locations are then added to the routine NDE program where the condition and fitness-for-service is determined and where the on-going corrosion rate and level of corrosion mitigation can be monitored.

There are limitations with the ILI technology currently used at GPB. A typical high resolution<sup>11</sup> MFL smart pig gives wall thickness measurements that are  $\pm 10\%$  of the nominal wall thickness and sizing resolution of 3 times wall thickness for length and width assessment. In addition, there are temperature and pressure limitations that prevent or make difficult the use of MFL tools in many lines at GPB. The typical upper operating temperature for the MFL tools is 122°F/50°C compared with a typical separator fluids temperature of 150-160°F/65-71°C.

While the ILI program is an important element in the overall corrosion and integrity management program, it should be considered like any other inspection or monitoring technique as simply another tool to be applied where it delivers the most value.

When used, smart pig inspections are performed to gain a relative understanding of pipeline condition and rate of deterioration and/or to provide confidence that the internal and external conventional inspection programs have identified locations where mechanical integrity is at risk. Because MFL tools do not directly measure pipeline condition, results from in-line inspections are not reported in as received from the smart pig service company but are reported as part of the overall NDE summary.

Areas identified by ILI and interpreted as being a risk to future operation of equipment, are verified through visual, radiographic and/or ultrasonic inspection techniques and the results are reported as part of routine inspection programs.

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<sup>11</sup> MFL manufacturer technical data sheet

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<b>Program</b>	<b>Plan/Objectives</b>	<b>Target</b>	<b>Implementation</b>	<b>Evaluation</b>	<b>Corrective Action</b>
1.0 Overall program goals	Eliminate corrosion/erosion related failures	No harm to people No accidents No damage to environment Regulatory compliance Compliance with industry standards	Integrated program with monitoring, inspection, operational controls, and corrosion inhibitor	Key performance indicators Leading and lagging indicators	Adjust mitigation, monitoring, and operational targets to meet objective Defect elimination - repair/replace/abandon
	Provide equipment availability to end of Field life	2050	Integrated Program with Monitoring, Inspection, Operational Controls, and Corrosion Inhibition	Key Performance Indicators Leading and Lagging Indicators	Adjust Mitigation, Monitoring, and Operational Targets to Meet Objective
	Cost effective Corrosion Management	Budget	Alliance Partnerships Technical Incentive Contracts Continuous Improvement	Key Performance Indicators Leading and Lagging Indicators	Develop more Cost Effective Methods For Delivering the Program Best in Class Technology Investment for the Future

Table 9 Corrosion Management System

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Program	Plan/Objectives	Target	Implementation	Evaluation	Corrective Action
1.1 Corrosion Monitoring	Monitor for changes in corrosion rates	System dependant targets Corrosion rate to meet overall objectives Regulatory compliance Compliance with industry standards	Short term corrosion rate determination Medium term corrosion rate determination	ER probes Weight loss coupon rate Pitting Rates	Adjust Mitigating action to achieve corrosion rate target
	Monitor effectiveness of the chemical mitigation programs	Optimize Corrosion Inhibitor Rates and Distribution Optimize chemical mitigation programs e.g. Oxygen scavenger Biocide Drag reducing agent Scale	See above	See above	Provide feedback to Chemical treatment Operations Inspection activities Adjust Mitigation Effort Production Chemistry
	Monitor changes in the process conditions	Field-wide Velocity Management targets	Weekly Review of Operational Controls by CIC Group Operations review of fluid velocities Velocity alarms in Distributive Control System (DCS)	Mixture Velocities, Water Cuts, and Water Rates	Adjust production rates to meet velocity management targets
	Corrosion mechanism changes with time	Mitigation action in place prior to threat to mechanical integrity	Data availability and access Ease of 'data mining' and evaluation Single data storage Comprehensive data management and reporting process	Long-Term Process Change	Develop mitigation program Mechanism management as part of routine business
1.2 Erosion Monitoring	Monitor the effectiveness of the erosion mitigation programs	V/ve <2.5 Max mixture Velocity and water cut matrix Well Put-On-Production (POP) process Regulatory compliance Compliance with industry standards	Unified velocity management standard across the North Slope Monthly compilation Of High Risk Wells Inspection of High Risk Wells Mixture velocity calculation in DCS	Mixture Velocities Inspection results	Additional inspection and monitoring at high risk sites Adjust Process Conditions Well shut-in Production reduction Design/debottleneck facilities

Table 10 Corrosion Management System Element – Monitoring

Program	Plan/Objectives	Target	Implementation	Evaluation	Corrective Action
1.3 Corrosion Mitigation	Mitigate Corrosion Through Application of Corrosion Inhibitors	Control Corrosion Rates to Acceptable Levels (See Overall Program Goals) Regulatory compliance Compliance with industry standards	Continuous Injection into individual wells as far upstream as possible - currently at Wellhead Protect all equipment between injection point and separation plant	ER Probes WLC's Inspection	Corrosion Inhibitor Development Adjust Mitigation Effort
		Control Corrosion Rates to Acceptable Levels (See Overall Program Goals)	Batch Treatments on a routine schedule with injection at the Wellhead	WLC's Inspection	Corrosion Inhibitor Development Adjust Mitigation Effort Through Reviews
	Mitigate Corrosion through Operational Controls	Operational Guidelines	Weekly Reviews by CIC Group	Mixture Velocities	Adjust Process Conditions
	Mitigate Corrosion through Maintenance Pigging	Achieve Scheduled Frequency	Maintenance Pigging	Inspection Pigging Returns	Adjust Maintenance Pigging Schedule
1.4 Erosion Mitigation	Mitigate Erosion Through Operational Controls and Design	Control Erosion Rates to Acceptable Levels (See Overall Program Goals) V/ve < 2.5 Regulatory compliance Compliance with industry standards	Well POP process V/ve Guidelines	V/ve Inspection (ERM)	Adjust Process Conditions

Table 10 (continued) Corrosion Management System Element – Mitigation

Appendix 3 – Corrosion Management System

Program	Plan/Objectives	Target	Implementation	Evaluation	Corrective Action
1.5 Inspection	Integrated inspection program to provide a overall assessment of plant condition and corrosion rates	Inspection activity level Leak/save target Inspection increases Plant condition Regulatory compliance	Corrosion rate monitoring program (CRM) Erosion rate monitoring program (ERM) Comprehensive inspection program (CIP) Frequent inspection program (FIP) Corrosion under insulation program (CUI)	NDE technique sheets and procedures Standardized assessment of piping condition, degradation rate and mechanism	Provide feedback to chemical mitigation program Erosion management program Fitness for service assessment Equipment life assessment Proactive repair scheduling
	Assessment of Current Damage Mechanisms	Zero Increases	Internal and external programs	See above	Repair/replace/monitor
	Search for New Damage Mechanisms	Mitigation action in place prior to threat to FFS	Baseline new equipment Apply lessons learnt from industry practice else where in the world Apply lessons learned for other BP operations Apply learnings across the field for similar equipment/process conditions Communications with Operations and Reservoir Engineers	See above	Develop mitigation program Mechanism management as part of routine business
1.6 Fitness for Service	Fitness for service assurance	Regulatory compliance Compliance with industry standard	See above inspection programs	Battelle Modified B31G fitness-for-service criteria (note piping only) BP Internal specification for the assessment of damaged pipe	Repair equipment Replace equipment Derate equipment Abandon equipment
	Structural integrity	Regulatory compliance Compliance with industry standard	Walking speed survey every 5 years	Piping design code BP Spec, B31.4 and B31.8 Piping stress analysis Nondestructive testing as required	Repair/replace Correct support defect Monitor for further degradation

Table 10 (continued) Corrosion Management System Element – Inspection

<b>Program</b>	<b>Plan/Objectives</b>	<b>Target</b>	<b>Implementation</b>	<b>Evaluation</b>	<b>Corrective Action</b>
1.7 Continuous Improvement	Provide Feedback to Monitoring, Mitigation, and Inspection Programs	Continuous Improvement	Integrated Program with Monitoring, Inspection, Operational Controls, and Corrosion Inhibitor Provides Feedback Control Loop for Program Improvements Consolidated data store, MIMIR	Weekly program review Quarterly program review Annual program reviews and strategy assessment Annual equipment life/availability review Key Performance Indicators	Strategic adjustment Budget/funding level changes Mitigation process change and review Technical/R&D requirements and programs

Table 10 (continued) Corrosion Management System Element – Inspection

Appendix 3 – Corrosion Management System

<b>Program</b>	<b>Plan/Objectives</b>	<b>Target</b>	<b>Implementation</b>	<b>Evaluation</b>	<b>Corrective Action</b>
1.1.1 Monitoring – Electrical Resistance Probes (ER)	Monitor the Effectiveness of the Mitigation Programs	< 2mpy Regulatory compliance Compliance with industry standard	ER Probes - Upstream and/or Downstream Ends of Flow lines	Investigate Cause for Corrosion Rate Increase	Mitigation Adjustments ER Probe Maintenance
1.1.2 Monitoring – Weight Loss Coupons (WLC)	Monitor the Effectiveness of the Mitigation Programs	Gen CR: < 2mpy Pit CR: < 20mpy Regulatory compliance Compliance with Industry standard	WLC – Installed Flow lines, Well lines, Headers, and Piping	Investigate Cause for Corrosion Rate Increase	Mitigation Adjustments Inspection Program Adjustments
1.1.3 Monitoring – Process Conditions	Monitor changes in the Process Conditions	(See Mixture Velocity and Erosion Sections Below) Regulatory compliance Compliance with Industry standard		Investigate Cause for Process Upset Long-Term Process Change Monitor Impact	Mitigation Adjustments
1.1.4 Monitoring – Mixture Velocity Management Program	Monitor the Effectiveness of the Mitigation Programs	Operational Guidelines Mix Vel Limits Regulatory compliance Compliance with Industry standard	Operations Acceptance of Mixture Velocity Guidelines SETCIM	Review Alarm List to Determine True Offenders	Adjust Process Conditions
1.1.5 Monitoring – Erosion Management Program	Monitor the Effectiveness of the Erosion Mitigation Programs	Operational Guidelines Well Put on Production (POP) $V/V_c < 2.5$ Regulatory compliance Compliance with Industry standard	Operations Acceptance of Erosion Guidelines High Risk Well Inspection Program (ERM)	Monthly Reviews to Determine High Risk Equipment and Repeat Offenders	Adjust Process Conditions

Table 11 Monitoring Program Techniques

Program	Plan/Objectives	Target	Implementation	Evaluation	Corrective Action
1.2.1 Mitigation – Corrosion Inhibitor	Mitigate Corrosion Through Application of Corrosion Inhibitors	Control Corrosion Rates to Acceptable Levels (See Overall Program Goals) Regulatory compliance Compliance with industry standard Control Corrosion Rates to Acceptable Levels (See Overall Program Goals)	Continuous Injection Into Individual Wells as Far Upstream As Possible – Currently at Wellhead Protect All Equipment Between Injection Point and Separation Plant  Batch Treatments on a Routine Schedule with Injection at the Wellhead	ER Probes WLC's Inspection  WLC's Inspection	Corrosion Inhibitor Development Adjust Mitigation Effort  Corrosion Inhibitor Development Adjust Mitigation Effort through Reviews
1.2.2 Mitigation – Operational Control, Maintenance, and Material Selection	Mitigate Corrosion Through Operational Controls  Mitigate Erosion through Operational Controls  Mitigate Corrosion through Maintenance Pigging Corrosion Resistant Alloys	Operational Guidelines Mixture Velocity Limits Regulatory compliance Compliance with industry standard Operational Guidelines Well POP V/ve < 2.5  Achieve Scheduled Frequency Zero Increases (I's)	Operations Acceptance of Mixture Velocity Guidelines  Operations Acceptance of Erosion Guidelines High Risk Well Inspection Program (ERM) Maintenance Pigging  Selected Facilities & Equipment	Mixture Velocities Review Alarm List to determine true offenders  Monthly Reviews to Determine High Risk Equipment and Repeat Offenders Inspection Pigging Returns Inspection Applicability For Service Requirements	Adjust Process Conditions  Adjust Process Conditions  Adjust Maintenance Pigging Schedule Replace as Necessary
1.2.3 Mitigation – Structural Integrity	Mitigate structural damage caused by subsidence, jacking, vibration, Impact, snow loading, etc. through inspections	No failures due to structural damage Regulatory compliance Compliance with industry standard	Operational procedures for visual surveillance of pipelines Piping stress analysis as required NDE Inspections as required	Review Pipeline Design Code/BP Specification	Repair, replace and correct deficiencies as required Add Pipeline Vibration Dampeners (PVDs) as required

Table 11 (continued) Mitigation Program Techniques

Appendix 3 – Corrosion Management System

Program	Plan/Objectives	Target	Implementation	Evaluation	Corrective Action
1.3.1 Corrosion Rate Monitoring (CRM)	Assessment of current corrosion mechanisms Monitor for new corrosion mechanisms	No measurable active corrosion -Zero increases (I's) Regulatory compliance Compliance with industry standard	CRM Program – Fixed locations on approximately bi-annual frequency	Inspections Condition of Equipment Rate of degradation	Mitigation Adjustments Repair/Replace Preventative Maintenance
1.3.2 Erosion Rate Monitoring (ERM)	Monitor high risk wells Assessment of current erosion locations	Manageable rate of degradation Regulatory compliance Compliance with industry standard	ERM Program – monthly to quarterly	Inspections Condition of Equipment Rate of degradation	Mitigation Adjustments Repair/Replace Preventative Maintenance
1.3.3 Frequent Inspection Program (FIP)	Assessment of High Corrosion Rates Monitor locations near repair	Fitness-for-Service Regulatory compliance Compliance with industry standard	FIP Program – monthly to bi-annual	Inspections Condition of Equipment Rate of degradation	Mitigation Adjustments Repair/Replace Preventative Maintenance
1.3.4 Comprehensive Integrity Program (CIP)	Comprehensive Coverage of equipment Fitness-for-Service review	Fitness-for-Service Regulatory compliance Compliance with industry standard	CIP – Condition and rate based half-life recurring frequency Extend coverage through new locations	Inspections Condition of Equipment Rate of degradation	Mitigation Adjustments Repair/Replace Preventative Maintenance
1.3.5 Corrosion Under Insulation (CUI)	Comprehensive Coverage of equipment	Inspection of Locations susceptible to CUI Fitness For Service Regulatory compliance Compliance with industry standard	CUI – Risk based annual program Management of location inventory through recurring examinations	Detect Damage Areas Analysis of occurrence	Repair/Replace Preventative Maintenance

Table 11 (continued) Mitigation Program Techniques

Appendix 3 – Corrosion Management System

Method	Technique	Description	Sensitivity	Accuracy	Freq	Notes/Comments
Corrosion Monitoring	Electrical Resistance (ER) Probes	Measurement of corrosion rate by monitoring changes in electrical resistance of a metal probe due to volume loss	High	Low	H/D	Correlate poorly to actual pipewall corrosion rates
	Weight Loss Coupons Corrosion Rate	Exposure of metal samples to corrosive fluid and calculation of volume loss rates based on weight	Medium	Medium	M	Limited benefit in determining short-term effects, such as flow regime changes on corrosion rates
	Weight Loss Coupons Pitting Rate	Exposure of metal samples and assessment of pitting rate via measurement of pit depths	Medium	Medium	M	Not a very sensitive measure for GPB 3phase but more effective in the PW system
	Galvanic Probe	Detects changes in corrosivity as a function of current flow between two dissimilar metals.	High	Low	C	Not a reliable measurement of mild steel corrosion rate. Very suitable to monitor oxygen and chlorine changes in seawater
	Linear Polarization Resistance (LPR)	Electrochemical technique for assessing corrosion rate by application of controlled voltage and measuring current response	High	Low	H/D	Not used at GPB due to the interference of hydrocarbon films on measurement

Table 12 Corrosion Monitoring Techniques – Benefits and Limitations

Method	Technique	Description	Sensitivity	Accuracy	Freq	Notes/Comments
Process Monitoring	Mixture velocity	Mixture velocity of fluids in pipe-work	Medium	Medium	D	Accuracy dependent upon production information (T, P, Oil, Water, Gas)
	Water cut	Percent water in liquid fluids	Medium	Medium	D	Accuracy dependent upon production information (Oil, Water)
	Temperature and pressure	Measured temperature and pressure in process equipment	Medium	Medium	D	
	Dissolved Oxygen	Amount of oxygen dissolved in Sea Water	High	Medium	D	In-line accuracy problematic. Chemet method more accurate
	Iron (Fe) counts	Amount of Iron (Fe) dissolved in process water	High	Low	M	
	Microbiological activity	Amount of microbiological life forms in process fluids	Medium	Low	M	

Table 13 Process Monitoring techniques – Benefits and Limitations

Appendix 3 - Corrosion Management System

Method	Technique	Description	Sensitivity	Accuracy	Freq	Notes/Comments
Inspection/NDE	Radiographic Testing (RT)	Assessment of pipe wall degradation by passing gamma or x-ray radiation through a specimen and projecting an image on conventional lead screen/film. Irregular density variations of the image can indicate metal loss.	Medium	Medium	M/Q/H/ Y	Utilized for detection, monitoring, and fit for service assessment* of pipe metal loss in the form of mechanical, corrosion and erosion degradation. Currently being phased out in lieu of 'greener' process of DRT - see below
	Digital Radiographic Testing (DRT)	Assessment of pipe wall degradation by passing gamma or x-ray radiation through a specimen and projecting an image on phosphor screen/imaging plate. Irregular density variations of the image can indicate metal loss.	Medium	Medium	M/Q/H/ Y	Utilized for detection, monitoring, and fit for service assessment of pipe metal loss in the form of mechanical, corrosion, and erosion degradation. DRT provides additional benefits in waste reduction associated with conventional film and processing chemicals
	Tangential Radiography Testing (TRT)	Assessment of pipe wall degradation by passing gamma or x-ray radiation through insulation at the tangent of the specimen and projecting an image on screen/film, phosphor screen/imaging plate, or detector array.	High	Low	Y	Utilized for detection of corrosion under insulation (CUI). Deployed where potential moisture ingress is suspected on thermally insulated piping
	Ultrasonic Testing (UT)	Assessment of pipe wall thickness by sending/receiving ultrasound through a specimen. Echoes returning indicate remaining thickness of the specimen.	Medium	High	M/Q/H/ Y	Utilized for detection, monitoring, and fit for service assessment of pipe metal loss in the form of mechanical, corrosion, and erosion degradation
	Guided Wave Ultrasonic Testing (GUT)	Volumetric assessment of pipe wall by sending/receiving ultrasound through a specimen in the form of cylinder Lamb Waves. Monitoring changes in these waves indicate potential changes in pipe thickness. Alternatively, echoes returning to the source transducer may also indicate interruptions or pitting in the pipe segment.	Low	Low	Y	Utilized for cased piping assessment where access does not support use of traditional inspection methods. The method is capable of semi-quantifying metal loss but cannot discriminate between internal and external corrosion
	Electromagnetic Pulse Testing (EMT)	Assessment of pipe wall by propagating broadband electromagnetic waves on the exterior surface of the specimen. When waves traveling down steel pipe encounter corrosion on the pipe surface, the waves are distorted. Distortions in waveform may indicate rust by-product on the surface of the steel and subsequent metal loss.	High	Low	Y	Utilized for cased piping assessment where access does not support use of traditional inspection methods. The method cannot quantify metal loss and has a tendency to report false positive results but seldom overlooks surface atmospheric corrosion

Table 14 Inspection/Non-Destructive Examination Techniques - Benefits and Limitations

Method	Technique	Description	Sensitivity	Accuracy	Freq	Notes/Comments
Inspection/NDE (Cont)	In-line Inspection – Smart Pig Magnetic Flux (MFL) Technique	Assessment of pipelines for the detection and measurement of metal loss. These pigs carry high strength magnets, which apply a strong magnetic field into the pipe wall. The magnetic field saturates the pipe steel with magnetic flux. As a result, areas of metal loss cause the flux to leak out of the pipe wall. The flux leakage data are recorded and used to infer the size and depth of any metal loss defects in the pipe.	High	Medium	N/A	Utilized where design and process operation permit in-line pigging. Metal loss MFL In-line Inspection provides complete evaluation of pipeline integrity within the limitations of the MFL technique.

Table 14 (continued) Inspection/Non-Destructive Examination Techniques – Benefits and Limitations

Appendix 3 – Corrosion Management System

Service	Equipment Type	Monitoring Technique	Inspection Program	Mitigation Program*
Oil	Flow line	ER Probes WLC Process Monitoring	CRM FIP CIP CUI	CI Injection Mixture Velocities Periodic Maintenance Pigging Operational Controls
	Well line	WLC Process Monitoring	CRM ERM FIP CIP CUI	CI Injection Mixture Velocities Mixture Velocities Operational Controls
Produced Water	Flow line	WLC	CRM FIP CIP CUI	CI Injection** CI Carry Over Periodic Maintenance Pigging Mixture Velocities Operational Controls
	Well line	WLC	CRM FIP CIP CUI	CI Injection** CI Carry Over Mixture Velocities Operational Controls
Seawater	Flow line	WLC Galvanic Probes Dissolved O <sub>2</sub> Microbiological Activity	CRM FIP CIP CUI	Biocide Treatment O <sub>2</sub> Scavenger Periodic Maintenance Pigging Operational Controls
	Well line	WLC Microbiological Activity	CRM FIP CIP CUI	Biocide Treatment Periodic Maintenance Pigging Operational Controls
Export oil	Flow line	WLC ER Probes	CRM FIP CIP CUI	CI Carry Over Mixture Velocities Operational Controls Periodic Maintenance Pigging

\*Applicable to all inspection programs noted

\*\*No CI injection for FS-2 PW

**Table 15 Corrosion Management System Implementation by Equip Type and Service**

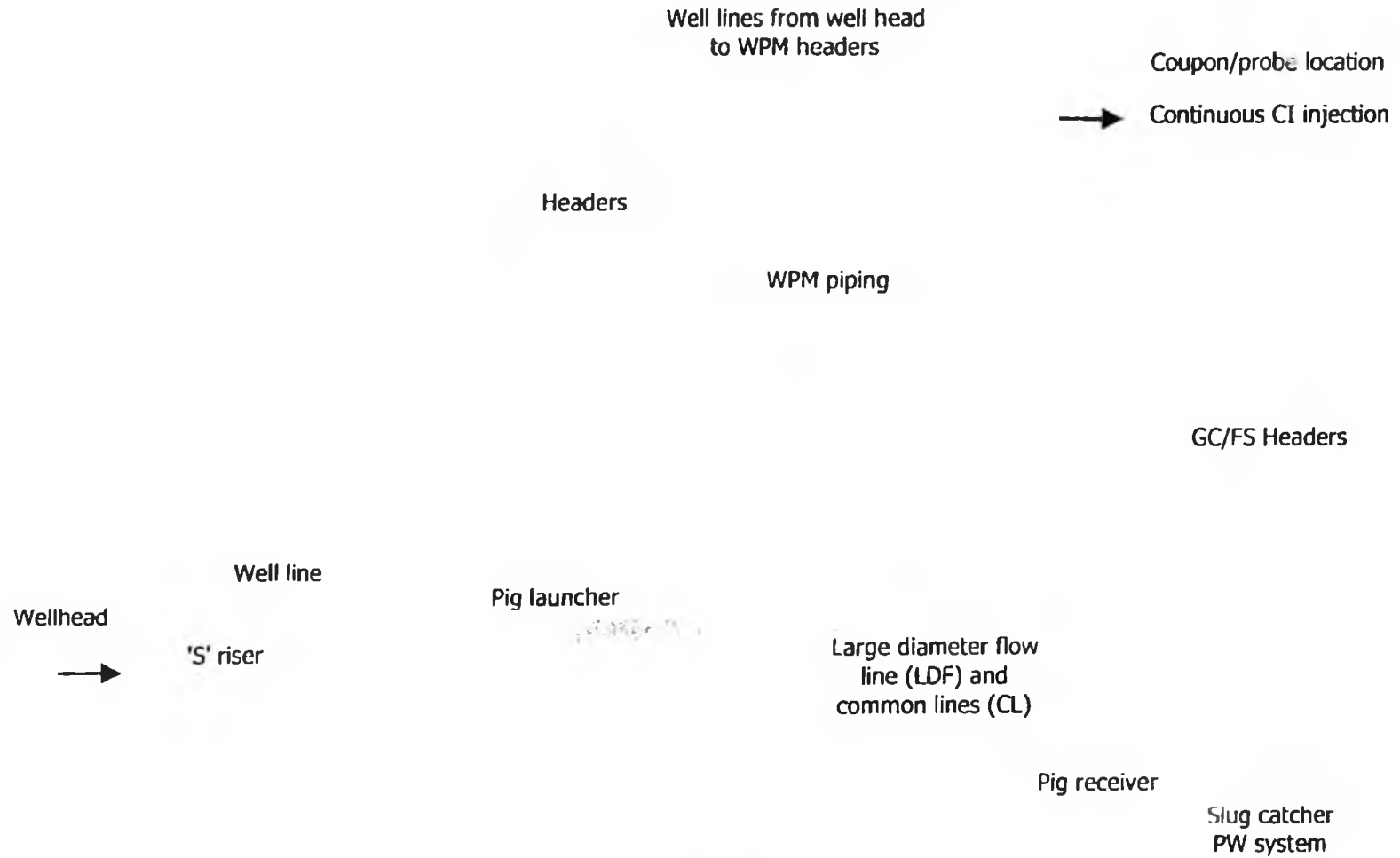


Figure 7 Facility Schematic

Appendix 3 – Corrosion Management System

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Appendix 3 - Corrosion Management System

BP North Slope Operations	Field Data (current 1/01)	
Greater Prudhoe Bay	Field Area	150,000 acres
	Original Oil in Place (Gross)	25 billion barrels
	Original Gas in Place (Gross)	47 trillion Std. Cu Ft
	Oil Production Wells	1,080
	Gas Injection Wells	36
	Water Injection Wells	174
	Major Separation Plants	6
	Major Gas Handling Plants	2
	Major Water Handling Plants	3
	Miles of Pipelines (approximate)	1,300
Midnight Sun	Field Area	3,000 acres
	Original Oil in Place (Gross)	0.06 billion barrels
	Original Gas in Place (Gross)	trillion Std Cu Ft
	Oil Production Wells	2
	Water Injection Wells	1
	Miles of Pipelines (approximate)	4
Aurora	Field Area	10,000 acres
	Original Oil in Place (Gross)	billion barrels
	Original Gas in Place (Gross)	trillion Std Cu Ft
	Oil Production Wells	5
	Miles of Pipelines (approximate)	1
Pt. McIntyre	Field Area	8,000 acres
	Original Oil in Place (Gross)	0.8 billion barrels
	Original Gas in Place (Gross)	0.9 trillion Std Cu Ft
	Oil Production Wells	59
	Gas Injection Wells	1
	Water Injection Wells	15
	Miles of Pipelines (approximate)	6
Lisburne	Field Area	30,000 acres
	Original Oil in Place (Gross)	1.8 billion barrels
	Original Gas in Place (Gross)	trillion Std Cu ft
	Oil Production Wells	74
	Gas Injection Wells	4
	Major Separation Plants	1
	Miles of Pipelines (approximate)	27
Niakuk & Western Niakuk	Field Area	1,900 acres
	Original Oil in Place (Gross)	billion barrels
	Original Gas in Place (Gross)	trillion Std Cu Ft
	Oil Production Wells	18
	Water Injection Wells	7
	Miles of Pipelines (approximate)	6

Appendix 3 – Corrosion Management System

BP North Slope Operations	Field Data (current 1/01)	
Milne Point	Field Area	36,454 acres
	Original Oil in Place (Gross)	0.92 billion barrels
	Oil Production Wells	107
	Gas/Water Injection Wells	59
	Source Water Wells	8
	Major Separation Plants	1
	Miles of Pipelines (approximate)	55
Schrader Bluff	Field Area	28,000 acres
	Original Oil in Place (Gross)	1.97 billion barrels
	Oil Production Wells	49
	Gas/Water Injection Wells	14
	Source Water Wells	3
	Miles of Pipelines (approximate)	15
Elder	Field Area	300 acres
	Original Oil in Place (Gross)	0.013 billion barrels
	Original Gas in Place (Gross)	0.052 trillion Std Cu Ft
	Oil Production Wells	1
	Gas Injection Wells	1
	Miles of Pipelines (approximate)	.5
Endicott	Field Area	8,800 acres
	Original Oil in Place (Gross)	billion barrels
	Original Gas in Place (Gross)	1.4 trillion Std Cu Ft
	Oil Production Wells	47
	Gas Injection Wells	5
	Water Injection Wells	21
	Major Separation Plants	1
	Miles of Pipelines (approximate)	52
Sag Delta North	Field Area	380 acres
	Original Oil in Place (Gross)	0.014 billion barrels
	Oil Production Wells	2
	Gas Injection Wells	2
	Miles of Pipelines (approximate)	.5
Badami	Original Oil in Place (Gross)	0.160 billion barrels
	Oil Production Wells	6
	Gas Injection Wells	2
	Major Separation Plants	1
	Miles of Pipelines (approximate)	50
Northstar (current 3/02)	Field Area	38,000 acres
	Original Oil in Place (Gross)	.176 billion barrels
	Oil Production Wells	4
	Disposal Injection Wells	1
	Gas Injection Wells	2
	Major Separation Plants	1
	Miles of Pipelines (approximate)	30

GPB Table 3.1 - BPXA North Slope Operations



## 2000 Work Plan

### Commitment to Corrosion Monitoring

Phillips Alaska, Inc.  
BP Exploration (Alaska) Inc.

"BP and Phillips will, in consultation with ADEC, develop a performance management program for the regular review of BP's and Phillips' corrosion monitoring and related practices for non-common carrier North Slope pipelines operated by BP or Phillips. This program will include meet and confer working sessions between BP, Phillips and ADEC, scheduled on average twice per year, reports by BP and Phillips of their current and projected monitoring, maintenance and inspection practices to assess and to remedy potential or actual corrosion and other structural concerns related to these lines, and ongoing consultation with ADEC regarding environmental control technologies and management practices."

#### Work Plan Purpose:

The purpose of this work plan is to clearly define the purpose, scope, content, reporting requirements, roles and responsibilities, and milestones/timing for the development and implementation of the Corrosion Monitoring Performance Management Program required by Paragraph II.A.6 of the North Slope Charter Agreement.

#### Corrosion Monitoring Performance Management Program

**Purpose:** To provide for 'the regular review of BP and PAI's corrosion monitoring and related practices for non-common carrier North Slope pipelines' operated by BP or PAI.  
'Corrosion Monitoring' specifically refers to the activity of monitoring pipeline corrosion rates via corrosion probes, corrosion coupons, internal pipeline inspections, and external pipeline inspections.  
'Related practices' refers to the assessment of corrosion monitoring data and the associated response to the assessment, specifically chemicals, inspection, and repairs.

**Scope:** Non-common carrier North Slope pipelines operated by BP or Phillips Alaska, Inc.

"Non-common carrier pipelines" refer to Non-DOT-regulated pipelines. Included in this designation are cross-country and on-pad pipelines in crude, gas, and other hydrocarbon services, as well as, produced water and seawater service pipelines. In module and inter-module on pad piping are not considered part of the scope of this review program.

**Content:** This Corrosion Monitoring Performance Management Program consists of the following:

1. BP and PAI will "meet and confer" with ADEC twice per year, on average. These sessions will be "working sessions" where BP and PAI will inform ADEC of the following:
  - A. Summary description of the inspection and maintenance practices used to assess and to remedy potential or actual corrosion, or other significant structural concerns relating to these lines, which have arisen from actual operating experience. This description will address overall areas of focus, the rationale for this focus, and the nature of monitoring and related practices used during the time since the last meeting. This description may be brief if strategies/focus areas have not changed since the last meeting.
  - B. Summary overview of ongoing coupon and probe monitoring results.
  - C. Summary overview of chemical optimization activities.
  - D. Summary overview of ongoing internal inspection activities.
  - E. Summary overview of ongoing external inspection activities.
  - F. Summary overview of ongoing structural concerns.
  - G. Summary of conclusions drawn and responses taken to remedy potential or actual corrosion concerns relating to these lines.
  - H. Review/discussion of corrosion or structural related spills and incidents
  - I. Review the actions developed by the operator to address any corrosion performance trends that significantly exceed expected parameters.
  - J. Summary of program improvements and enhancements, if applicable.
  - K. Review of annual monitoring report (see below) at the next scheduled semi-annual meeting.

The agenda for these meetings will also include an opportunity for open discussion and an opportunity for ADEC to ask questions, provide feedback, etc.

These meetings will be targeted for April and October of each year, although this timing can be adjusted upon the mutual agreement of BP, PAI, and ADEC. The location of the meetings will alternate between the parties.

2. BP and PAI will submit annual reports to ADEC, which will provide the status of current and projected monitoring activities. These reports will be issued on or before March 31st of each year, and reflect the prior calendar year. The following information will be provided:
  - A. Annual bullet item reporting the progress of the Charter Agreement corrosion related commitment.
  - B. A general overview of the previous year's monitoring activities.
  - C. Metrics that depict coupon and probe corrosion rates.
  - D. Metrics that characterize chemical optimization activities.
  - E. Metrics that depict the number and type of internal/external inspections done, and, as applicable, the corrosion increases/rates and corresponding inspection intervals.
  - F. Metrics that characterize the quantity and type of repairs made in response to the internal/external inspections done per the above paragraph.
  - G. Metrics that depict the numbers and types of corrosion and structural related spills and incidents.
  - H. A forecast of the next year's monitoring activities in terms of focus areas and inspection goals. These forecasts cannot be viewed as binding, as corrosion strategies are dynamic and priorities will change over the course of the year. However, changes in focus will be communicated to ADEC during the semi-annual meetings described above.

Note: These reports will be presented in, and be part of, a comprehensive North Slope Charter Agreement status report.

3. In addition to the semi-annual "meet and confer" working sessions referenced above, BP and PAI will remain accessible to provide "ongoing consultation" to ADEC regarding environmental control technologies and management practices.

'Environmental Control Technologies' refer to those technologies specifically related to corrosion monitoring and mitigation of the subject pipelines.

'Management practices' refer to corrosion monitoring and related practices as defined above.

4. During the semi-annual 'Meet and Confer' working meetings with BP and/or PAI, ADEC may use the services of a corrosion expert(s) (contracted from

funds under Charter Commitment paragraph II.A.7) to assist in the review of performance trends and corrosion program features.

5. BP has assigned CIC Manager, R. Woollam/564-4437, and Phillips has assigned Kuperuk Engineering and Corrosion Supervisor M. Cherry and J. Huber/659-7384, to be the contacts responsible for ensuring these commitments are met, including ADEC notification of scheduled times for the semiannual presentations. The ADEC contact for this effort is (Pipeline Integrity Section Manager/S. Colberg/269-3078) who will notify interested personnel of the presentation times, maintain the reports for distribution to the public when requested and coordinate other issues relating to this commitment.

### **Annual Timetable**

March 31st Annual Report

April 30th 1H Semi-Annual Review (Meet and Confer)

October 31st 2H Semi-Annual Review (Meet and Confer)

**CONFIR-  
MATIONS  
2005**

# ALASKA STATE LEGISLATURE



Official Business

## SENATE RESOURCES COMMITTEE

Senator Tom Wagoner, Chair

State Capitol, Room 427

Juneau, AK 99801-1182

Phone: (907) 465-4907 Fax: (907) 465-4779

Senator Ralph Seekins, Vice-Chair

Senator Ben Stevens

Senator Kim Elton

Senator Fred Dyson

Senator Bert Stedman

Senator Gretchen Guess

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### REPORT ON CONFIRMATION OF APPOINTMENTS

February 28, 2005

The Honorable Ben Stevens  
President of the Senate  
State Capitol  
Juneau, Alaska 99801-1182

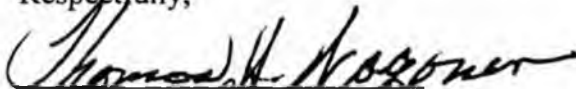
Dear President Stevens:


In accordance with AS 39.05.080, the Senate Resources Committee reviewed the following and recommends the appointment be forwarded to a joint session for consideration

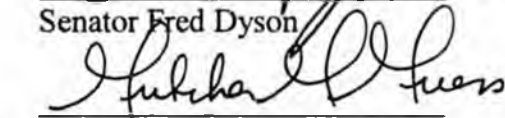
Daniel Seamount, Commissioner: Alaska Oil and Gas Conservation Commission


There were no stated objections to the confirmation of the named individual(s) by committee members. This does not reflect an intent by any of the members to vote for or against the individual during any further sessions.

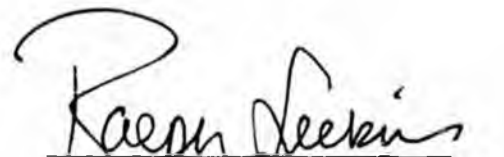
Respectfully,

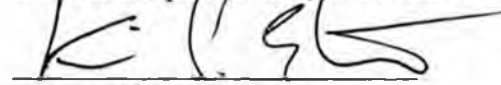
  
\_\_\_\_\_  
Senator Tom Wagoner, Chair

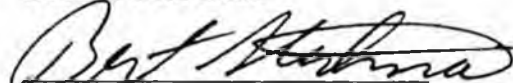
  
\_\_\_\_\_  
Senator Fred Dyson

  
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Senator Gretchen Guess

  
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Senator Ben Stevens

  
\_\_\_\_\_  
Senator Ralph Seekins, Vice-Chair

  
\_\_\_\_\_  
Senator Kim Elton

  
\_\_\_\_\_  
Senator Bert Stedman



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(907) 485-3701  
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EMAIL: senate\_secretary@legis.state.ak.us

February 16, 2005

**MEMORANDUM**

**TO:** Senator Wagoner, Chair  
Resources Committee

**FROM:** Kirsten Waid *KW*  
Secretary of the Senate

**SUBJECT:** Governor's Confirmations

Pursuant to AS 39.05.080, President pro tempore Green has referred the following name for legislative confirmation to your committee for a hearing, recommendation and report:

**Alaska Oil and Gas Conservation Commission**

Daniel Seamount – Anchorage  
Appointed: 1/13/2000 Reappointed: 1/11/2005  
Term Expires: 3/1/2001

KCW:lc  
Resume attached

RESUME'

APP ✓ OIL & GAS CONSERVATION /  
COMMISSION /6

DANIEL TAYLOR SEAMOUNT Jr.

Home Address

23747 Hilltop Dr.  
Chugiak, AK 99567  
WK: 279-1433

OCCUPATIONAL GOAL: Geologist

WORK EXPERIENCE:

Union Oil Co. of Ca., 2/8/93 to present  
P.O. Box 196247, Anchorage, AK 99519-6247

Title: Senior Advising Geologist

Duties: For last year have worked regional exploration and specific prospects in Cook Inlet. Prospect areas have included North Middle Ground Shoal, Sunfish, Redoubt Shoal, coal bed methane, South Cook Inlet, Susitna Basin and west side. Utilized Atlas's WDS well log system and Landmark's Stratworks, Petroworks, and Seisworks packages. For 3 1/2 years prior, was project manager and Team leader of a group which exploited development, exploration, and business opportunities in Cook Inlet and Alaska North Slope. Heavily involved in planning and budgeting wells, forming partnerships, facilities construction & re-mediation, and safety and environmental projects. Made numerous written and oral presentations to management and partners to update them on project progress and presented to state agencies (DNR & AOGCC) to form units, drilling PA's, and Plan of Operations. Provided geological input on well bore disposal of platform effluent. Presently working on plan of operations for Matanuska Valley Coal Bed Methane project. Also worked on Kuparuk and Endicott Fields on North Slope.

Union Oil Co. of Ca., 5/16/88 to 2/8/93  
3300 N. Butler, Farmington, NM 87401  
P.O. Box 2620, Casper, WY 82602-2620

Titles: District Development Geologist: 8/89 to present  
Geologist: 5/88 to 8/89

Duties: Supervised and worked development and exploration geology of UNOCAL operated properties in the San Juan, Paradox, and Piceance Basins. Exploited tight sandstone reservoirs (27 wells), coal seam gas (57 wells), and conventional sandstone and carbonate oil and gas reservoirs. Horizontal, deviated, and vertical well bores were utilized. Additional work included managing geological contractors, progress reporting of drilling programs and field mapping. Also assisted in exploration projects in the Green River & DJ Basins. Presented San Juan Dakota reservoir characterization results to NM State O&G Comm. in approval process of tight gas sands designation. Worked with Utah O&G Comm. in forming Lisbon Field Unit.

Presented to numerous potential partners and was on a team which sold Unocal's alternative fuel tax credit to outside investors.

Marathon Oil Co., 7/13/81 to 5/16/88  
P.O. Box 120, Casper, WY 82602

Titles: Staff Geologist: 1986 to 1988  
Project Supervisor: 1984 to 1986  
Geologist: 1981 to 1984

Duties: Oil and gas prospecting in the D-J Basin (one Paleozoic discovery), the Green River Basin (assisted in two Moxø Arch Frontier and Dakota gas discoveries and one sub-economic oil well), the Las Animas Arch (a number of Morrow Prospects on hold), and the central Kansas uplift (Pennsylvanian basal ss and Lansing-Kansas City Fm.). Work included regional & local mapping of structures, thickness', and facies of Rocky Mountain petroleum reservoirs and presentation of prospects to management. Was expert witness in Nebraska lawsuit between Marathon and KN Energy.

Chevron U.S.A. Inc., 8/18/73 to 1/3/79

2525 N. Chester, Oildale, CA 93308 (10/75 to 1/79)  
575 Market St., San Francisco, CA 94105 (8/73 to 10/75)

Titles: Geologic Assistant: 1975-1979

Computer Analyst : 1973-1975

Duties: Utilized geologic and geophysical computer programs. Performed well site work and prospect generation in California onshore and offshore.

Institute of Geophysics and Planetary Physics, 1/3/79 to 7/13/81

University of Ca, Earth Science Dept. Riverside, CA 92521

Title: Research Associate (half time while finishing MS)

Duties: Assisted research scientists in geothermal, seismic, and earthquake studies. Also, supervised the drilling of heat flow test holes.

EDUCATION:

M.S. - Geology, 6/81, University of CA, Riverside, CA.

Emphasis on geothermal development and exploration. Thesis titled, " Well Log Study of the Hydrothermally Altered Sediments of Cerro Prieto Geothermal Field, Baja California, Mexico".

B.S. - Geology, 5/73, University of CA, Riverside

INTERESTS

Backpacking  
Fishing  
Hiking  
Hunting  
Skiing  
Wild Life Viewing



Official Business

# Alaska State Legislature

## Senate

### Office of the Secretary

April 1, 2005

State Capitol, Room 213  
Juneau, Alaska 99801-1182  
Phone: (907) 465-3701  
Fax: (907) 465-2832  
Email:senate\_secretary@legis.state.ak.us

#### MEMORANDUM

**TO:** Senator Wagoner, Chair  
Resources Committee

**FROM:** Kirsten Waid *KW*  
Secretary of the Senate

**SUBJECT:** Governor's Confirmations

Pursuant to AS 39.05.080, President Stevens has referred the following name for legislative confirmation to your committee for a hearing, recommendation and report:

**Alaska Oil and Gas Conservation Commission**

Cathy P. Foerster - Anchorage

Appointed: 3/23/2005 Term Expires: 3/1/2007

KCW:lc  
Resume attached

2731 SEAFARER LOOP  
ANCHORAGE, AK 99516

PHONE (907) 346-3000  
E-MAIL kennale@alaska.net

# Cathy P Foerster

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## Summary of qualifications

Strong problem-solving and people skills, intelligence, and integrity. 25+ years of broad petroleum industry experience from technical to management, from research to operations, and from the Gulf of Mexico to the North Slope of Alaska.

## Education

1973 – 1977                      University of Texas                      Austin, Texas  
Bachelor of Science in Mechanical Engineering with Highest Honors

## Professional experience

2002 – Present                      PRA  
Reservoir Engineer: Provide technical consulting on a variety of projects, including Kuparuk exploration evaluation for Pioneer Resources, Facilities Access study for DNR, and Lisburne redevelopment study for BP.

2000 – 2001                      BP  
Director, BP Energy Center: Managed construction and final design details, stressing safety, cost containment, and quality control. Coordinated development of energy education displays and presentations. Collaborated with community leaders, non-profits, and educators.

1999 – 2000                      ARCO Alaska, Inc.  
Government Relations Director: Represented ARCO's interests as lobbyist before Alaska state legislators and other public officials.

1994 – 1998                      ARCO Alaska, Inc.  
Planning and New Field Development Supervisor: Supervised engineers and geoscientists in developing new satellite fields on the North Slope of Alaska. Managed long range plan, budget, reserves reports, and performance analyses.

1992 – 1994                      ARCO Alaska, Inc.  
Production Superintendent: Managed non-rig wellwork and drillsite support operations with over \$100 million annual budget for the Eastern Operating Area of Prudhoe Bay Field.

1989 – 1992 ARCO Exploration & Production Technology, Inc.  
 Research Director. Managed production engineering research and technical support efforts of engineers and scientists in well stimulation, rock mechanics, reservoir geochemistry, artificial lift, and profile modification. Served as liaison between R&D staff and operations clients. Represented ARCO's interests in various research consortia.

1987 – 1989 ARCO Oil & Gas Co.  
 Reservoir Coordinator. Served as technical liaison between executives in company headquarters and technical personnel in operating districts on financial evaluations, engineering and exploration project proposals, competitor analyses, and acquisition evaluations.

1982 – 1987 ARCO Oil & Gas Co.  
 Area Engineer. Led various production and reservoir engineering groups that developed and managed onshore South Texas and offshore Gulf of Mexico fields. Interacted extensively with Texas oil and gas regulatory agency officials.

1979 – 1982 ARCO Oil & Gas Co.  
 Operations Engineer. Developed and managed various oil and gas fields onshore in South Texas.

1978 – 1979 Exxon Gas System, Inc.  
 Facilities Engineer. Provided facilities engineering support for an intra-state gas pipeline system.

1977 – 1978 Exxon Company USA  
 Reservoir Engineer. Performed reservoir and surveillance engineering for oil and gas fields onshore in South Texas.

**Objective**

Employment using my oil & gas, problem-solving, and business management skills and experience

**References**

Provided upon request

# ALASKA STATE LEGISLATURE



Official Business

## SENATE RESOURCES COMMITTEE

Senator Tom Wagoner, Chair

State Capitol, Room 427

Juneau, AK 99801-1182

Phone: (907) 465-4907 Fax: (907) 465-4779

Senator Ralph Seekins, Vice-Chair

Senator Ben Stevens

Senator Kim Elton

Senator Fred Dyson

Senator Bert Stedman

Senator Gretchen Guess

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### REPORT ON CONFIRMATION OF APPOINTMENTS

April 18, 2005

The Honorable Ben Stevens  
President of the Senate  
State Capitol  
Juneau, Alaska 99801-1182

Dear President Stevens:

In accordance with AS 39.05.080, the Senate Resources Committee reviewed the following and recommends the appointment be forwarded to a joint session for consideration

Cathy P. Foerster, Commissioner: Alaska Oil and Gas Conservation Commission

There were no stated objections to the confirmation of the named individual(s) by committee members. This does not reflect an intent by any of the members to vote for or against the individual during any further sessions.

Respectfully,

\_\_\_\_\_  
Senator Tom Wagoner, Chair

\_\_\_\_\_  
Senator Ralph Seekins, Vice-Chair

\_\_\_\_\_  
Senator Fred Dyson

\_\_\_\_\_  
Senator Kim Elton

\_\_\_\_\_  
Senator Gretchen Guess

\_\_\_\_\_  
Senator Bert Stedman

\_\_\_\_\_  
Senator Ben Stevens

# Cathy P Foerster

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## **Summary of qualifications**

Strong problem-solving and people skills, intelligence, and integrity. 25+ years of broad petroleum industry experience from technical to management, from research to operations, and from the Gulf of Mexico to the North Slope of Alaska.

## **Education**

1973 – 1977                      University of Texas                      Austin, Texas  
Bachelor of Science in Mechanical Engineering with Highest Honors

## **Professional experience**

2002 – Present                      PRA  
Reservoir Engineer: Provide technical consulting on a variety of projects, including Kuparuk exploration evaluation for Pioneer Resources, Facilities Access study for DNR, and Lisburne redevelopment study for BP.

2000 – 2001                      BP  
Director, BP Energy Center: Managed construction and final design details, stressing safety, cost containment, and quality control. Coordinated development of energy education displays and presentations. Collaborated with community leaders, non-profits, and educators.

1999 – 2000                      ARCO Alaska, Inc.  
Government Relations Director: Represented ARCO's interests as lobbyist before Alaska state legislators and other public officials.

1994 – 1998                      ARCO Alaska, Inc.  
Planning and New Field Development Supervisor: Supervised engineers and geoscientists in developing new satellite fields on the North Slope of Alaska. Managed long range plan, budget, reserves reports, and performance analyses.

1992 – 1994                      ARCO Alaska, Inc.  
Production Superintendent: Managed non-rig wellwork and drillsite support operations with over \$100 million annual budget for the Eastern Operating Area of Prudhoe Bay Field.

1989 – 1992 ARCO Exploration & Production Technology, Inc.  
Research Director: Managed production engineering research and technical support efforts of engineers and scientists in well stimulation, rock mechanics, reservoir geochemistry, artificial lift, and profile modification. Served as liaison between R&D staff and operations clients. Represented ARCO's interests in various research consortia.

1987 – 1989 ARCO Oil & Gas Co.  
Reservoir Coordinator: Served as technical liaison between executives in company headquarters and technical personnel in operating districts on financial evaluations, engineering and exploration project proposals, competitor analyses, and acquisition evaluations.

1982 – 1987 ARCO Oil & Gas Co.  
Area Engineer: Led various production and reservoir engineering groups that developed and managed onshore South Texas and offshore Gulf of Mexico fields. Interacted extensively with Texas oil and gas regulatory agency officials.

1979 – 1982 ARCO Oil & Gas Co.  
Operations Engineer: Developed and managed various oil and gas fields onshore in South Texas.

1978 – 1979 Exxon Gas System, Inc.  
Facilities Engineer: Provided facilities engineering support for an intra-state gas pipeline system

1977 – 1978 Exxon Company USA  
Reservoir Engineer: Performed reservoir and surveillance engineering for oil and gas fields onshore in South Texas

**Objective**

Employment using my oil & gas, problem-solving, and business management skills and experience

**References**

Provided upon request



# UNITED FISHERMEN OF ALASKA

211 Fourth Street, Suite 110  
Juneau, Alaska 99801-1172  
(907) 586-2820  
(907) 463-2545 Fax  
E-Mail: [ufa@ufa-fish.org](mailto:ufa@ufa-fish.org)  
[www.ufa-fish.org](http://www.ufa-fish.org)

April 25, 2005

Senator Tom Wagoner, Chair  
Senate Resources Committee  
State Capitol (Mail Stop 3100)  
Juneau AK 99801-1182

Dear Senator Wagoner,

At its recent meeting the UFA board considered potential nominees for the three Board of Fisheries seats that are open for appointment this year.

UFA supports the reappointment of Mel Morris, Rupert Andrews, and John Jensen to additional terms on the board. These board members have shown a balanced consideration of all users and the importance of Alaska's fishery resources to Alaska's economy and quality of life.

We appreciate your consideration of this important matter.

Sincerely,

Mark Vinsel  
Executive Director

#### MEMBER ORGANIZATIONS

Alaska Crab Coalition • Alaska Druggers Association • Alaska Longline Fishermen's Association • Armstrong Keta • At-sea Processors Association  
Bristol Bay Reserve • Concerned Area "M" Fishermen • Cordova District Fishermen United • Douglas Island Pink and Chum  
Fishing Vessel Owners Association • Groundfish Forum • Kenai Peninsula Fishermen's Association • Kodiak Regional Aquaculture Association  
North Pacific Fisheries Association • North Pacific Scallop Cooperative • Northern Southeast Regional Aquaculture Association  
Old Harbor Fishermen's Association • Petersburg Vessel Owners Association • Prince William Sound Aquaculture Corporation  
Purse Seine Vessel Owner Association • Seafood Producers Cooperative • Southeast Alaska Herring Seiners Marketing Association  
Southeast Alaska Regional Dive Fisheries Association • Southeast Alaska Seiners Association • Southern Southeast Regional Aquaculture Association  
United Catcher Boats • United Salmon Association • United Southeast Alaska Gillnetters • Valdez Fisheries Development Association  
Western Gulf of Alaska Fishermen



## UNITED FISHERMEN OF ALASKA

211 Fourth Street, Suite 110  
Juneau, Alaska 99801-1172  
(907) 586-2620  
(907) 463-2646 Fax  
E-Mail: [ufa@ufa-fish.org](mailto:ufa@ufa-fish.org)  
[www.ufa-fish.org](http://www.ufa-fish.org)

April 12, 2005

Senator Thomas Wagoner, Chair  
Senate Resources Committee  
Alaska State Legislature  
State Capitol (Mail Stop 3100)  
Juneau AK 99801-1182

Dear Senator Wagoner,

United Fishermen of Alaska (UFA) supports the reappointment of McIvan Morris, John Jensen, and Rupert Andrews to the Alaska Board of Fisheries. These individuals bring essential experience from the Department of Fish and Game, and a balance of commercial and sport fishing backgrounds to the Board. All three have served the Board well in their initial terms, with the necessary hard work required for fair consideration of the complex issues that are the responsibility of the Board of Fisheries.

UFA represents 31 Alaska commercial fishing organizations and hundreds of individual fishermen and fishing related businesses. We appreciate your consideration and support.

Sincerely,

Mark Vinsel  
Executive Director

Cc: Senate President Ben Stevens



Official Business

# Alaska State Legislature

## Senate

### Office of the Secretary

State Capitol, Room 213  
Juneau, Alaska 99801-1182  
Phone: (907) 465-3701  
Fax: (907) 465-2832  
Email: [senate\\_secretary@legis.state.ak.us](mailto:senate_secretary@legis.state.ak.us)

April 5, 2005

#### MEMORANDUM

**TO:** Senator Wagoner, Chair  
Resources Committee

**FROM:** Kirsten Waid *KW*  
Secretary of the Senate

**SUBJECT:** Governor's Confirmations

Pursuant to Article III, Section 25 of the Alaska Constitution, President Stevens has referred the following names for legislative confirmation to your committee for a hearing, recommendation and report:

**Commissioner – Department of Environmental Conservation**  
Kurt Fredriksson - Juneau Appointed: 3/31/05

**Commissioner – Department of Fish and Game**  
McKie Campbell – Juneau Appointed: 3/31/05

KCW:jcs  
Resume attached

**KURT A. FREDRIKSSON**  
17000 GLACIER HIGHWAY  
JUNEAU, ALASKA 99801  
HOME: 907-789-7616, WORK: 907-789-5199

### EDUCATION

M.S. 1976 Environmental Studies, California State University Fullerton  
B.A. 1974 Geography, California State University Fullerton

### PROFESSIONAL EXPERIENCE

**2/1999 to Present: Deputy Commissioner**  
**Alaska Department of Environmental Conservation**

I currently serve as the second in command of Alaska's environmental agency which is responsible for managing air and water quality, solid waste disposal, food safety and sanitation, spill prevention and response, and community sewer and water construction projects. The department operates with an annual budget of approximately \$50 million and 450 employees. I serve as the commissioner's representative on a number of Boards and Commissions including the Pacific Northwest Environmental Directors group, British Columbia and Western States Oil Spill Task Force, the Board of Storage Tank Assistance, Alaska Regional Response Team, State Emergency Response Commission and Alaska Coastal Policy Council.

As deputy commissioner I worked to change the department's traditional "command and control" regulatory approach to a more collaborative problem solving approach. Economic reuse of the contaminated pulp mill site in Sitka, permitting air discharges from Cominco's Red Dog mine, developing site specific criteria for wastewater discharges to Cook Inlet from the Anchorage sewage treatment plant and improving the spill response capability for offshore development in the Beaufort Sea and tanker traffic in Prince William Sound are a few of the accomplishments made under the new problem solving approach. I was also responsible for approving the public review of all department regulations and their adoption for filing with the Lieutenant Governor.

**4/1990 to 2/1999: Director, Division of Spill Prevention and Response**  
**Alaska Department of Environmental Conservation**

Following the Exxon Valdez oil spill the department created a new Division of Spill Prevention and Response with significant new authority and resources to approve industry oil spill prevention and response contingency plans, assess and cleanup contaminated sites, and close or upgrade commercial underground fuel storage tanks. As the first deputy director and then beginning in 1995 as the division's director, I led the division's work with industry, regional citizen advisory groups, federal agencies and other stakeholders to put in place the nation's most advanced spill prevention, preparedness and response network.

**4/1983 to 4/1990: Senior Project Analyst, Division of Governmental Coordination  
Alaska Governor's Office**

Working in the Governor's office throughout the administrations of Governor's Hammond, Sheffield, and Cowper I prepared the state's position on major development projects in consultation with other state agencies and interest groups. I directly supervised staff in Juneau, Anchorage and Fairbanks who were responsible for conducting pre-application meetings, mediating disputes between the project applicant and reviewers, and issuing a final state decision. Major projects reviewed during my tenure included nearshore oil and gas development causeways in the Beaufort Sea, all offshore oil and gas lease sales, exploration and development plans, onshore leasing proposals for NPRA and ANWR, the Trans Alaska Gas System right-of-way lease, Alyeska ballast water treatment plant discharges in Valdez, and offshore mining in western Alaska.

During the first month of the Exxon Valdez oil spill, I established a Governor's office in the fishing community of Cordova and served as the Governor's representative to assist the local community in dealing with reimbursement of local spill response costs and general assistance from state agencies in community recovery.

**9/1979 to 8/1983: Deputy Director, Alaska Office of Coastal Management  
Alaska Governor's Office**

As the second in charge I served as staff to the Alaska Coastal Policy Council. The Council members included state agency commissioners and local elected officials that oversaw the development and approval of community specific coastal development plans. I managed the office budget and administrative operations including hiring and interagency agreements. I also supervised special project staff that produced a number of studies including an analysis of wellands permitting options, an analysis of government service delivery systems in Alaska's unorganized borough, and publication of an index of major state regulations governing land and water uses in Alaska.

**PROFESSIONAL REFERENCES**

Ms. Marty Rutherford, Deputy Commissioner  
Alaska Department of Natural Resources  
(907) 269-8431

Mr. Joe Hegna, Regulatory Affairs  
Phillips Alaska Inc.  
(907) 263-4576

**PERSONAL REFERENCES**

Mr. Tom Lawson, Director of Administrative Services  
Alaska Department of Community and Economic Development  
(907) 465-2506

## McKie Campbell

10608 Horizon Dr.  
Juneau, AK 99801

re: McKie Campbell

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### *Experience:*

Mr. Campbell is currently the principal of the Campbell Group, a project management firm that specializes in permitting and natural resource consulting, and the management of multi-discipline teams of scientists performing EIS's and EA's. Mr. Campbell has 25 years of governmental and private sector natural resources experience in Alaska. He has extensive experience working with local, state, and federal agencies as well as natural resource advocacy groups on all sides of issues, and specializes in working in the interface between science and government to bring diverse interests together.

Mr. Campbell is currently managing the preliminary engineering and environmental documentation for the Nelson Island Road System. He has recently completed project management of the Greens Creek Mine Tailings Expansion EIS, the King Cove Access Project EIS, and a rewrite of the state's Coastal Zone Management Standards.

Mr. Campbell managed the Flightseeing Noise Analysis and Alternative Heliport Siting Study for the City and Borough of Juneau, served as the assistant project manager for the Pogo Mine EIS, and managed all local contractors and was liaison to state agencies for the AJ Mine SEIS. Mr. Campbell was project manager for EA's for Adesta fiber optic lines across Colorado (CDOT) and Utah (UDOT) and management of a \$700,000+ Alaska Science and Technology Foundation research project for the Alaska Department of Fish and Game, the Department of Environmental Conservation, and the Alaska Council of Producers.

Permitting work has included work for the Alaska Natural Gas Transportation System for the Alaska Northwest Natural Gas Transportation Company (Foothills), the Kenai/Kachemak Pipeline for Unocal and Marathon, and Homer Electric Association's Moose Pass to Soldotna Fiber Optic Cable Feasibility Study. Prior to the Fort Knox Mine project receiving construction financing of \$374 million, it was the subject of an independent third-party due diligence review. Mr. Campbell was the team member responsible for reviewing all environmental issues and permits on behalf of the lending institutions. Mr. Campbell has also worked on the Pebble Deposit, Beluga Coal, and transportation issues for the Ambler Mining District.

Mr. Campbell has worked with the U.S. Congress to evaluate innovative approaches to mine reclamation issues and with the Alaska Legislature on behalf of the Alaska Council of Producers on water quality issues (HB 258, a bill supported by both development and environmental interests).

In government, Mr. Campbell last served as Deputy Commissioner of the Alaska Department of Fish and Game. In that capacity he worked with virtually every issue the department deals with as well as representing the Commissioner on selected issues with the Legislature and with the U.S. Congress. Mr. Campbell has also served as Special

Assistant to the Commissioner of ADF&G, as Legislative staff for nine years, as Deputy Chief of Staff in Governor Hickel's office, and as a volunteer team leader on Governor Murkowski's transition team.

From small legislative hearings, to the public comment process for the King Cove EIS that received over 19,000 written comments, Mr. Campbell has extensive experience with dealing with controversial issues through public outreach and the public meeting process. He has organized and moderated statewide meetings on subsistence and wolf control and hearings in Juneau on flight-seeing. In both public and private service, Mr. Campbell has a successful history of working with Tribes, villages, and other Native organizations. Of particular importance is Mr. Campbell's reputation and ability to manage complicated or controversial projects while maintaining the respect of all parties for the integrity of the process.

***Employment History:***

- 2003–Present - Principal of the Campbell Group, a project management firm specializing in NEPA, permitting, and natural resource consulting.
- 1998–2003 - Prior to reestablishing his consulting firm, Campbell was the Senior Environmental Manager in Alaska for Michael Baker, Jr. Inc.
- 1995–2003 - Principal of North Coast, a project management firm specializing in NEPA, permitting, and natural resource consulting.
- 1993–1994 - Deputy Commissioner - Alaska Department of Fish and Game, Juneau, AK. Responsible for much of the day-to-day management and administration of ADF&G. Particularly responsible for work with legislature and involved in resolution of difficult resource development / habitat issues. Represented the Commissioner on selected issues in Washington D.C.
- 1991–1993 - Alaska Governor's Office - Deputy Chief of Staff for Operations. Temporarily assigned to Governor Hickel's Office to resolve difficult natural resource issues. Appointed Deputy Chief of Staff to deal with operational issues throughout state government
- 1991 - Special Assistant to the Commissioner, Alaska Department of Fish and Game. Legislative liaison for ADF&G and represented the commissioner on special issues and with constituent groups
- 1990 - Campaign Manager, Arliss Sturgulewski's statewide Republican gubernatorial campaign
- 1981–1990 - Alaska State Senate. Professional Assistant. Nine years as legislative committee staff. During this time, Mr. Campbell focused on resource issues
  - 1989–1990 - Senate Rules Committee. Senator Sturgulewski, Chairman
  - 1987–1988 - Senate Community & Regional Affairs Committee. Senator Sturgulewski, Chairman
  - 1985–1987 - Senate Resources Committee. Senator Sturgulewski, Chairman
  - 1984 - Regulation Review Committee. Senator Ferguson, Chairman
  - 1983 - Senate Community & Regional Affairs Committee. Senator Ferguson, Chairman (from Senator Gilman's office)
  - 1981–1983 - Senate Community & Regional Affairs Committee. Sen. Gilman, Chairman

- 1979-1981 - Alaska\*Department of Community & Regional Affairs. Graduate Intern, Local Government Specialist III, Local Government Specialist IV. Worked with small rural communities throughout Alaska on contract management and grant administration.
- 1975-1979 - Investigator, Washington County Sheriff's Department, Marietta, Ohio
- 1972-1975 - Police Officer, Marietta Police Department, Marietta, Ohio

***Public and Community Service:***

- Volunteer Coordinator - Capitol Planning Committee, 2003-2004
- Co-Chair of Golden North Salmon Derby 2002 and 2003
- Candidate for Juneau's State Senate seat - lost primary 1998
- City and Borough of Juneau. Eaglecrest Board of Directors, 1992 to 2000 (Juneau's Municipal Ski Area, served two terms as President)
- Assembly member, 1987-1990. Served one term, did not run again because of managing Sturgulewski gubernatorial campaign at the time. Testified before Congress on wetlands issues.
- Juneau Planning Commission, 1983-1987, Chairman
- Juneau Parks and Recreation Commission, 1981-1983
- KTCO (Public radio and television station for Juneau and Southeast Alaska). Board of Directors., Board member and Secretary/Treasurer, 1991-1994
- Southeast Conference (a nonprofit group of local governments and businesses addressing regional issues in Southeast Alaska). Member, Second Vice President, First Vice President. Lobbied Congress and federal departments on transportation, Tongass timber, and other issues. 1987-1990

***Education:***

- B.A. Marietta College, Marietta, Ohio 1974
- Law Enforcement - Extensive additional courses in 1972-1979 - list available, plus Alaska Trooper's Academy - Fish and Game Enforcement Course
- University of Alaska, Southeast 1979-1980 Graduate work in Public Administration
- Real Estate Appraisal Courses - American Institute of Real Estate Appraisers University of Colorado, Boulder 1983, and University of San Diego, 1984 - List of courses available

***Personal:***

- D.O.B. August 5, 1950
- Married to Barbara Campbell. Barbara is a teacher at Gastineau School and is in her 25<sup>th</sup> year with the Juneau School District.
- Two daughters, Mary, 21, and Lindsay, 31

***Hobbies:***

- Reading, fishing, hunting, skiing, scuba diving (former instructor), and sailing (Around Admiralty - Spirit of Adventure Race - PHRF 1<sup>st</sup> place four times, First over all three times).



# UNITED FISHERMEN OF ALASKA

211 Fourth Street, Suite 110  
Juneau, Alaska 99801-1172  
(907) 586-2820  
(907) 463-2545 Fax  
E-Mail: [ufa@ufa-fish.org](mailto:ufa@ufa-fish.org)  
[www.ufa-fish.org](http://www.ufa-fish.org)

April 25, 2005

Senator Tom Wagoner, Chair  
Senate Resources Committee  
State Capitol (Mail Stop 3100)  
Juneau AK 99801-1182

Dear Senator Wagoner,

The United Fishermen of Alaska (UFA) Board of Directors recently met to discuss the position of Commissioner of the Alaska Department of Fish and Game (ADF&G). We interviewed Mr. McKie Campbell and were impressed with his awareness of the vital importance of Alaska's fish and game resources to Alaska's economy, the role of the commissioner, and the importance of Alaska's reputation for leadership in responsible and sustainable fish and game management.

UFA supports the confirmation of the Governor's appointment of McKie Campbell for ADF&G Commissioner, and we encourage the support of the Alaska legislature in the confirmation process.

United Fishermen of Alaska represents thirty-one Alaska commercial fishing organizations, and hundreds of individual fishermen and fishing related businesses. If you would like to discuss the appointment of Mr. Campbell, or other aspects of commercial fishing, please do not hesitate to call.

Thank you for your consideration.

Mark Vinsel  
Executive Director

#### MEMBER ORGANIZATIONS

Alaska Crab Coalition • Alaska Druggers Association • Alaska Longline Fishermen's Association • Armstrong Keta • At-sea Processors Association  
Bristol Bay Reserve • Concerned Area 'M' Fishermen • Cordova District Fishermen United • Douglas Island Pink and Chum  
Fishing Vessel Owners Association • Groundfish Forum • Kenai Peninsula Fishermen's Association • Kodiak Regional Aquaculture Association  
North Pacific Fisheries Association • North Pacific Scallop Cooperative • Northern Southeast Regional Aquaculture Association  
Old Harbor Fishermen's Association • Petersburg Vessel Owners Association • Prince William Sound Aquaculture Corporation  
Purse Seine Vessel Owner Association • Seafood Producers Cooperative • Southeast Alaska Herring Seiners Marketing Association  
Southeast Alaska Fisherman's Alliance • Southeast Alaska Regional Dive Fisheries Association • Southeast Alaska Seiners Association  
Southern Southeast Regional Aquaculture Association • United Catcher Boats • United Salmon Association • United Southeast Alaska Gillnetters  
Valdez Fisheries Development Association • Western Gulf of Alaska Fishermen

# ALASKA STATE LEGISLATURE



Official Business

## SENATE RESOURCES COMMITTEE

Senator Tom Wagoner, Chair

State Capitol, Room 427

Juneau, AK 99801-1182

Phone: (907) 465-4907 Fax: (907) 465-4779

Senator Ralph Seekins, Vice-Chair

Senator Ben Stevens

Senator Kim Elton

Senator Fred Dyson

Senator Bert Stedman

Senator Gretchen Guess

---

### REPORT ON CONFIRMATION OF APPOINTMENTS

April 25, 2005

The Honorable Ben Stevens  
President of the Senate  
State Capitol  
Juneau, Alaska 99801-1182


Dear President Stevens:

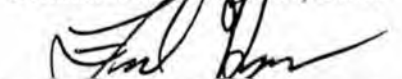
In accordance with AS 39.05.080, the Senate Resources Committee reviewed the following and recommends the appointment be forwarded to a joint session for consideration

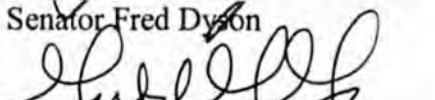
Kurt Fredricksson, Commissioner: Alaska Department of Environmental Conservation

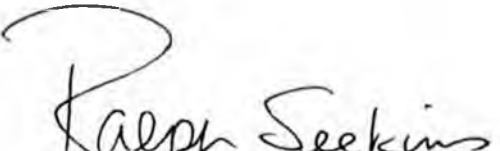
There were no stated objections to the confirmation of the named individual(s) by committee members. This does not reflect an intent by any of the members to vote for or against the individual during any further sessions.

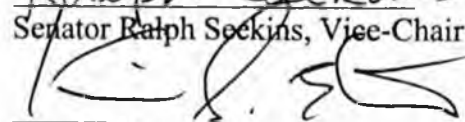
Respectfully,

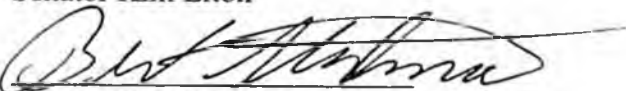
  
\_\_\_\_\_  
Senator Tom Wagoner, Chair

  
\_\_\_\_\_  
Senator Fred Dyson

  
\_\_\_\_\_  
Senator Gretchen Guess

  
\_\_\_\_\_  
Senator Ralph Seekins, Vice-Chair

  
\_\_\_\_\_  
Senator Kim Elton

  
\_\_\_\_\_  
Senator Bert Stedman

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Senator Ben Stevens

# ALASKA STATE LEGISLATURE



Official Business

## SENATE RESOURCES COMMITTEE

Senator Tom Wagoner, Chair

State Capitol, Room 427

Juneau, AK 99801-1182

Phone: (907) 465-4907 Fax: (907) 465-4779

Senator Ralph Seekins, Vice-Chair

Senator Ben Stevens

Senator Kim Elton

Senator Fred Dyson

Senator Bert Stedman

Senator Gretchen Guess

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### REPORT ON CONFIRMATION OF APPOINTMENTS

April 25, 2005

The Honorable Ben Stevens  
President of the Senate  
State Capitol  
Juneau, Alaska 99801-1182

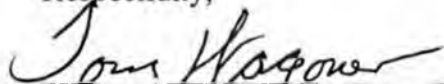
Dear President Stevens:

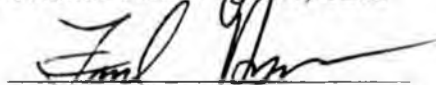
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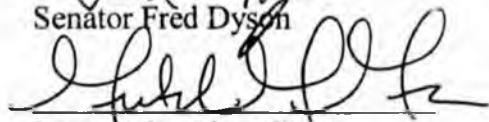
McKie Campbell, Commissioner: Alaska Department of Environmental Conservation

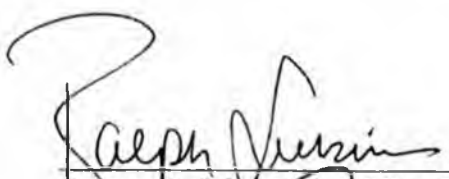
There were no stated objections to the confirmation of the named individual(s) by committee members. This does not reflect an intent by any of the members to vote for or against the individual during any further sessions.

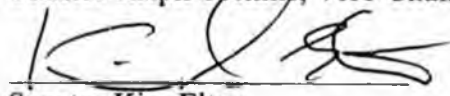
Respectfully,

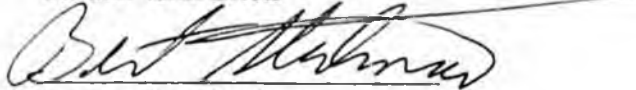
  
\_\_\_\_\_  
Senator Tom Wagoner, Chair

  
\_\_\_\_\_  
Senator Fred Dyson

  
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Senator Gretchen Guess

  
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Senator Ralph Seekins, Vice-Chair

  
\_\_\_\_\_  
Senator Kim Elton

  
\_\_\_\_\_  
Senator Bert Stedman

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Senator Ben Stevens

**ALASKA STATE LEGISLATURE**  
**Administrative Regulation Review Committee**  
**House Senate Joint Committee**

**Committee Members:**

Representative Tom Anderson, Chair  
Senator Gene Therriault, Vice Chair  
Senator Ben Stevens  
Senator Lyman Hoffman  
Representative Vic Kohring  
Representative Sharon Cissna



**Interim:**  
716 West 4<sup>th</sup> Avenue, Suite 610  
Anchorage, Alaska 99501  
Phone: (907) 269-0265  
Fax: (907) 269-0264

**Session:**  
Alaska State Capitol, Rm 408  
Juneau, Alaska 99801  
Phone: (907) 465-4939  
Fax: (907) 465-2418

MEMO

TO: All Legislative Members  
FROM: Rep. Tom Anderson  
DATE: April 25, 2005  
RE: Concerns Regarding Proposed Food Code Changes

*CONFIRMATION*  
*DEC - Fredriksson*

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The Joint Administrative Regulation Review Committee received much testimony at its recent hearing regarding the proposed Food Codes changes by DEC. **All of the public comment was firmly opposed to the implementation of these proposed Food Codes.**

**Comments included many concerns.** For instance: there is no real problem being addressed by this regulation overhaul; these are sweeping changes; this is over-regulation; this is overkill; this will increase the paperwork sent to the department, taking away the department's focus on inspections; this is asking the bad operators to inspect themselves; the program being implemented, called "Active Managerial Control," is the first of its kind being implemented in the nation; the schedule of fines is arbitrary; much of the language is unclear; it requires food workers to wear gloves at all times but that does not ensure safety, only the appearance of it; the timeline for public comment was too short; the advisory suggestions were not followed; the whole thing needs to be scratched; it is affecting seafood processing operators who have no incidents of food borne illness to speak of and have their own mechanisms for safety already in place; these are unprecedented and novel regulations; etcetera; etcetera.

**These proposed changes represent a major rewrite to the Alaska Food Code,** including several novel regulations. Nineteen of the new codes have no equivalent requirement in either the existing Alaska Food Code or the federal FDA Food Code. These proposed Food Code changes, while attempting to improve inspection procedures and public health and safety, must not disregard the businesses responsible for their implementation.

**These regulations fail the tests of necessity, effectiveness, cost-savings, public responsiveness, and legislative intent.** We can all agree to the need for public health and safety, which is a constitutional mandate in Alaska. The food service industry shares those same concerns. In fact, for them fulfilling those concerns means good business. These proposed changes fail to reflect the concerns voiced by the industry in the months prior to their development. These proposed regulations have greatly disturbed the food service industry, because their implementation will cost them more in compliance, rather than actually improving safety and health concerns. Additionally, these regulations do not promote the intent of its enabling legislation, HB 378, which was to reduce inspection costs. No cost-savings were attributed to this Food Code rewrite.

**The worthwhile attribute of these proposed regulations is the requirement to have food-workers better trained and for the industry to develop standard operating procedures (SOP).** The intent of these regulations is to allow self-inspection to help reduce the costly and mandated function of the department to inspect and ensure that food establishments are operating in a safe and healthy manner.

**Report from the  
Joint Administrative Regulation Review Committee  
Hearing on Proposed Food Codes by DEC  
April 20, 2005**

The Joint Administrative Regulation Review Committee heard testimony regarding the 108 pages of proposed Food Code changes by the Department of Environmental Conservation now in its final stages of drafting. The public comment period to the DEC has been closed since March 15, 2005.

Testimony was received from:

Kurt Fredriksson, Acting Commissioner to the DEC  
Kristin Ryan, Director of the Division of Environmental Health

Testimony opposed to the Food Code changes was received from:

Karen Rogina, Alaska Hospitality Alliance  
Meghan Popley, Cape Fox Lodge, Ketchikan  
Karen Lynch, Cape Fox Lodge, Ketchikan  
Tim Frank, Cape Fox Lodge, Ketchikan  
Fernando Salvador, Talkeetna Alaskan Lodge  
Patrick Wilson, Petersburg Fisheries  
Brian Lynch, Small Take-out Food Operator  
Larry Hackenmiller, Fairbanks CHARR  
Tim Montgomery, Steamers Restaurant, Ketchikan  
Doug Donegan, Self  
Dale Fox, Alaska CHARR  
Earl Hubbard, Trident Seafoods, Seattle  
Kenny Lum, Food Products Association, Seattle  
Joe Frazer, Food Products Association  
Jim Yonker, Ocean Beauty  
Liz Best, Alaska General Seafoods

The following issues regarding proposed Food Code changes were addressed at the hearing:

- Adds Paperwork to Food Service Industry and to the Department
- Does Not Streamline Process of Inspections
- Does Not Decrease Costs of Inspections (Intent of the Enabling Legislation HB378)
- May Reduce Inspection Levels
- Allows All Operators, Good and Bad, to Self-Monitor
- Does Not Solve Budgetary Issues Regarding Health Inspections
- Adds Costs to Doing Business
- Requirement for No Bare Hand Contact Is Not Practical Nor Warranted
- Posting of Signs Unanimously Opposed
- Requires Wrapping of Silverware
- Initiates Active Managerial Control (AMC), a New Methodology
- Introduces Several Novel Regulations with No Federal or State Equivalent
- Increases Training for Food Service Workers
- Requires Food Workers to Be Tested and Given Certification Card
- Requires Certified Food Service Managers to Always Be On-Hand
- Fails to Document the Problems in Food Industry Being Solved
- Increases Governmental Control or "Over-Regulation"
- Applies Ambiguous Fine Schedule
- Affects Seafood Processors Detrimentally
- An Exception Is Being Requested by the Seafood Processors

**Brief Overview of HB378:**  
**Enabling Legislation for Proposed Food Codes**

HB378 passed in 2004

In the Minutes of Legislative Committee meetings held in 2004 on HB378 this bill:

**Intent:** "The need [for this bill]," said Rep. Bill Williams, who sponsored it, "stems from concern that bar and restaurant owners are concerned about paying high fees but seldom receiving and inspection. Since 1995, the fees have risen from \$50 to \$450." Regarding this bill, he said he hoped that the food inspection program fees decrease as a result of HB 378.

**Authorized DEC:**

- To add to the powers and duties of the commissioner: "the training, testing, and certification requirements for individuals who handle or prepare food, their supervisors, and their employers to ensure their knowledge of food safety and sanitation principles and requirements."
- To set up a program that allows facility owners to do their own inspections, of which DEC will monitor. This new program, which the department calls Active Managerial Control (AMC), that relies upon three elements:
  1. The training and certification of a knowledgeable workforce;
  2. Managing risks and food handling through standard operating procedures (SOP);
  3. Enforcement.

## PROPOSED FOOD CODES FAIL FIVE TESTS

### NECESSITY:

No studies, no statistics, no problems were documented showing the need for the stringent new requirements these proposed regulations would place upon the food service industry in Alaska. The State of Alaska Epidemiology Bulletin reported six restaurant outbreaks of food borne illness for the four years of 2000 to 2003. Several novel regulatory approaches, which have never before introduced either in Alaska Codes or Federal FDA Codes, are included in these new regulations.

### EFFECTIVENESS:

These proposed regulations require more reporting from businesses, adding paperwork both to themselves and to the department. These are self-assessment reports, which means that those businesses with poor sanitation will not necessarily be directly monitored. The posting of complaint signs, the usage of gloves at all times by food workers, may improve the appearance of food safety though not actual food safety.

The training program for certifying food workers is considered an improvement. The practical implementation of it still has questions and concerns. Requiring a certified manager on hand at all times may increase business costs without necessarily improving public health; it could cause hardship to a business, during its transitions of personnel when a replacement is not readily available.

### LEGISLATIVE INTENT:

The original intent of the enabling legislation HB378, according to Rep. Bill Williams its sponsor, was to reduce fees for inspections. In the minutes to committee hearings on this legislation, he said, "The need [for HB378] stems from concern that bar and restaurant owners are concerned about paying high fees but seldom receiving an inspection. Since 1995, the fees have risen from \$50 to \$450." He went on to say that he hopes the food inspection program fees decrease as a result of HB378.

### COST-SAVINGS:

From testimony from the businesses that will be affected by these proposed regulations, there will be added costs imposed upon them. They will be purchasing gloves; they will be wrapping all their silverware; they will be spending staff time to fill out compliance paperwork. These extra expenses do not affect directly public health and safety but do improve the appearance of public health and safety. If the proposed regulations increase the number of reports the DEC will be receiving from businesses, it may move their time away from actual inspections toward the review of paperwork. No documentation or discussion was presented at the Food Code Hearing indicating that costs would be reduced because of these proposed regulations.

## RESPONSIVENESS TO PUBLIC COMMENT:

Admirably, the DEC engaged the food service industry prior to writing these proposed regulations in advisory discussions over several months. Advisory group members felt these discussions were helpful during the writing process.

The draft proposal of regulations, however, did not reflect their concerns. Food establishments run their businesses to serve the public and to stay in business; they are, in general, the most concerned regarding public health and safety for, simply, it is good for business.

The seafood processing industry specifically sought, at the ARRC Food Code Hearing, an exception to the proposed regulatory oversight. They expressed major concerns that these proposed regulations will place an expensive and unnecessary burden on them, as they have been operating with a perfect record and have self-regulating mechanisms built into their operations.

These regulations initiate a new paradigm called Active Managerial Control (AMC), with the intent to address the problem of doing inspections to all food industry establishments. Such sweeping changes demand more time for public scrutiny.



# Alaska State Legislature

## Senate

### Office of the Secretary

State Capitol, Room 213  
Juneau, Alaska 99801-1182  
Phone: (907) 465-3701  
Fax: (907) 465-2832  
Email: senate\_secretary@legis.state.ak.us

Official Business

April 18, 2005

#### MEMORANDUM

**TO:** Senator Wagoner, Chair  
Resource Committee

**FROM:** Kirsten Waid *KW*  
Secretary of the Senate

**SUBJECT:** Governor's Confirmations

Pursuant to AS 39.05.080, President Stevens has referred the following names for legislative confirmation to your committee for a hearing, recommendation and report:

#### Board of Fisheries

Rupert E. Andrews - Juneau

Appointed: 1/20/2003      Reappointed: 4/11/2005      Term Expires: 6/30/2008

John E. Jensen - Petersburg

Appointed: 1/20/2003      Reappointed: 4/11/2005      Term Expires: 6/30/2008

Melvan E. Morris, Jr. - Kodiak

Appointed: 1/20/2003      Reappointed: 4/11/2005      Term Expires: 6/30/2008

#### Board of Game

Carl M. Morgan, Jr. - Aniak

Appointed: 4/11/2005      Term Expires: 3/1/2008

Ron Somerville - Juneau

Appointed: 1/21/2003      Reappointed: 4/11/2005      Term Expires: 3/1/2008

Ted H. Spraker - Soldotna

Appointed: 1/21/2003      Reappointed: 4/11/2005      Term Expires: 3/1/2008

#### Alaska Commercial Fisheries Entry Commission

Peter Froehlich - Juneau

Appointment: 7/1/2005      Term Expires: 3/1/2009

KCW:jcs

Resumes attached

# STATE OF ALASKA - OFFICE OF THE GOVERNOR

## Boards and Commissions Office

### Membership Roster

#### GAME (040)

Member Seat Designation Address	Date Appointed	Reappointed	Term Expires
<b>McKie Campbell</b> Commissioner/Fish and Game Commissioner-Dept. of Fish & Game P. O. Box 25526 Juneau, AK 99802-5506	4/7/2005		
<b>Michael R. Fleagle</b> Public Chair-Board of Game P O Box 33 McGrath, AK 99627	1/21/2003	4/30/2004	3/1/2007
<b>Ben Grussendorf</b> Public 1221 Halibut Point Road Sitka, AK 99835	1/31/2001	5/4/2004	3/1/2007
<b>Cliff Judkins</b> Public President Alaska Boating Association P O Box 874124 Wasilla, AK 99687	1/21/2003	3/1/2003	3/1/2006
<b>Sharon McLeod-Everette</b> Public Box 81213 Fairbanks, AK 99708	3/1/2003		3/1/2006
<b>Carl M. Morgan, Jr.</b> Public Alaska State Legislature State Capitol, Room 434 Juneau, AK 99801-1182	4/11/2005		3/1/2008
<b>Ron Somerville</b> Public Vice Chair-Board of Game 4506 Robbie Road Juneau, AK 99802	1/21/2003	4/11/2005	3/1/2008
<b>Ted H. Spraker</b> Public 33350 Skyline Drive Soldotna, AK 99669	1/21/2003	4/11/2005	3/1/2008

STATE OF ALASKA  
Boards and Commissions

COMMERCIAL FISHERIES ENTRY

BOARD: Alaska Commercial Fisheries Entry Commission (CFEC)

BOARD IDENTIFICATION NUMBER: 020

DEPARTMENT: DEPARTMENT OF FISH AND GAME

AUTHORITY: AS 16.43.020

STATUS: Active

SUNSET DATE:

REQUIREMENTS: Legislative Confirmation and Financial Disclosure

PROHIBITIONS: None

TERM: 4 years

DESCRIPTION: 3 members appointed by Governor with a broad range of professional experience, none of whom has a vested economic interest in an interim-use permit, entry permit, commercial fishing vessel or gear, or in any fishery resource processing or marketing business (AS 16.43.050).

FUNCTION: Promotes conservation and sustained yield management of fishery resource, regulates/controls entry into commercial fisheries.

CHAIR: Governor appoints

SPECIAL FACTS: Quorum-2 members; regulatory/quasi-judicial agency; may be removed for cause; Governor designates chair for two years (may be designated for successive two-year terms).

COMPENSATION: By statute, salary is Range 26C Juneau exempt salary scale

MEETINGS: Commission members are salaried and meet throughout the year.

FOR FURTHER INFORMATION CONTACT:

Mr. Bruce Twomley  
Chair  
Commercial Fisheries Entry Commission  
8800 Glacier Highway, Suite 109  
Juneau, AK 99801-8079  
Phone: (907) 789-6160, FAX: (907) 789-6170  
E-MAIL ADDRESS: bruce\_twomley@cfec.state.ak.us  
WEBSITE: www.cfec.state.ak.us

# STATE OF ALASKA - OFFICE OF THE GOVERNOR

## Boards and Commissions Office

### Membership Roster

#### COMMERCIAL FISHERIES ENTRY (020)

Member	Date Appointed	Reappointed	Term Expires
Seat Designation			
Address			
<b>Peter Froehlich, Esq.</b>	7/1/2005		3/1/2009
Salaried			
8800 Glacier Highway, Suite 109			
Juneau, AK 99801			
Work Phone - (907) 789-6160			
<b>Frank M. Homan</b>	9/2/2003		3/1/2007
Salaried			
Commissioner			
Commercial Fisheries Entry Commission			
8800 Glacier Hwy. Suite 109			
Juneau, AK 99801			
Home Phone - (907) 586-2179			
Work Phone - (907) 789-6160			
FAX - (907) 789-6170			
<b>Mary McDowell</b>	10/6/1997	8/20/2001	3/1/2006
Salaried			
Commercial Fisheries Entry Commission			
8800 Glacier Highway, Suite 109			
Juneau, AK 99801-8079			
Home Phone - (907) 463-5160			
Work Phone - (907) 789-6160			
FAX - (907) 789-6170			

*Peter B. Froehlich*  
1785 Evergreen Avenue  
Juneau, Alaska 99801  
Phone: (907) 586-2806

The Honorable Frank H. Murkowski  
Governor of the State of Alaska  
P. O. Box 110001  
Juneau, Alaska 99811-0001

Dear Governor Murkowski:

I am writing to express my strong desire to serve the state as a commissioner on the Commercial Fisheries Entry Commission (CFEC). I have already discussed this ambition with your Chief of Staff, Jim Clark, and your Director of Boards and Commissions, Laraine Derr.

I will soon be ending my judicial career and have long had a deep interest in commercial fishing and its regulation. This interest goes back to my years as a crew member in the Kodiak king crab and tanner crab fisheries in the early 70's, and to my season as a crewman on a salmon tender in the Kodiak seine fishery during the same period. It was sharpened while I spent three seasons as an active permit holder in the salmon hand troll fishery, from 1979 to 1981.

Between these two periods of commercial fishing, I worked in the Attorney General's Office (AGO) as the primary attorney for the CFEC for over three years (1976 - 1979). I advised the commissioners and their staff, drafted their regulations and legislation proposals and represented them in court, as the number of entry permit denial appeals surged. When I returned to the AGO in 1981, my duties included acting as the final editor of all CFEC regulations and the drafter of all proposed CFEC legislation until taking the bench in 1989.

This rich variety of experience, along with my 15 years as a judge, makes me uniquely qualified to serve as a CFEC commissioner. I will bring my working knowledge of commercial fishing and my legal knowledge of CFEC statutes, regulations, and caselaw, as well as my judicial knowledge of dispute resolution techniques and decision-making. This is the ideal combination for what I know is the perfect job for me - one that I will truly enjoy, while serving both the commercial fishing industry and all Alaskans, to whom our resources belong.

I would welcome the opportunity to further discuss my interest in and qualifications for one of the upcoming vacancies on the CFEC with you or your staff.

Thank you very much for your consideration.

Sincerely,

Peter B. Froehlich

cc: Jim Clark, Chief of Staff  
Laraine Derr, Boards and Commissions

*Resume Of*

*Peter B. Froehlich*  
1785 Evergreen Avenue  
Juneau, Alaska 99801  
Phone: (907) 586-2806

Residence: Alaska resident since February 1970

Experience: *August 1989 – Present:* District Court Judge for Juneau, Alaska

*December 1981 – July 1989:* Assistant Attorney General, Juneau, Alaska. Split position in both Legislation and Regulations Section and Commercial Section

*July 1979 – November 1981:* Salmon hand trolling on my own boat (seasonal); part-time, private law practice including work for Alaska Legislature

*January 1976 – June 1979:* Assistant Attorney General in Juneau, Natural Resources Section

*September 1975 – December 1975:* Legal intern, U. S. Attorney's Office, Portland Oregon

*May 1975 – September 1975:* Legal Assistant, District Attorney's Office, Ketchikan, Alaska

*December 1973 – January 1974:* Legal Assistant, Attorney General's Office, Juneau, Alaska

*August 1970 – November 1972:* King crabbing, Tanner Crabbing and Salmon Tendering

Education: *November 2002:* National Judicial College, ABA/UNR (Civil Medication Certificate). (Also five other courses 1990 – 1998.)

*June – July 1995:* Oxford University, Legal Heritage Program

*August 1973 – December 1975:* Willamette University, College of Law, Salem, Oregon (Juris Doctorate)

*June 1974 – September 1974:* University of Washington, School of Law, Seattle, Washington (summer session)

*January 1972 – May 1972:* University of Alaska, Anchorage, Alaska (graduate courses)