Center for Regulatory Effectiveness' ("CRE") Comments on Proposed Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf; Bureau of Safety and Environmental Enforcement ("BSEE"), and Bureau of Ocean Energy Management ("BOEM"); www.gpo.gov/fdsys/pkg/FR-2015-02-24/pdf/2015-03609.pdf . Comments filed April 24, 2015, at www.regulations.gov, Docket ID: BSEE–2013–0011

I. Executive Summary

CRE earlier filed comments on the BOEM and BSEE Information Collection Requests ("ICRs") for these proposed rules.[1] CRE's ICR comments are Document BSEE-2013-0011-0015 in this docket. CRE's ICR comments are incorporated by reference into these comments on the proposed Arctic drilling rules themselves.

BSEE should take all actions necessary to correct the errors and omissions identified in CRE's incorporated ICR comments. These actions include but are not limited to withdrawing the two ICRs addressed by CRE's ICR comments.

In addition to CRE's incorporated ICR comments, CRE makes the following comments.

BSEE's proposed rules do not have an administrative record that supports them. The absence of a record is particularly true for the proposed same season response well ("SSRW") rules. There is no administrative record demonstrating the feasibility of SSRW in severe arctic conditions, and there is no record demonstrating SSRW's superiority to other containment and response methods.

If BSEE believes that there is a record supporting SSRW for the Arctic, then BSEE should identify that record and allow additional public comment on it. If BSEE cannot identify such a public record, then BSEE should withdraw its proposed SSRW rules.

The National Petroleum Council's recent report *ARCTIC POTENTIAL—REALIZING THE IMPORTANCE OF U.S. ARCTIC OIL AND GAS RESOURCES ("Arctic Report")* provides extensive evidence against SSRW in the Arctic.

[1] BOEM and BSEE will hereinafter be referred to collectively as "BSEE" unless the context requires otherwise.

BSEE should reconsider its proposed rules and their Cost Benefit Analysis in light of the *Arctic Repor*t, including the *Report's* conclusion that SSRW rules would create severe impediments to Arctic oil and gas activity.

II. Discussion

A) BSEE Should Reconsider the Arctic Rules and their Cost Benefit Analysis in Light of the *Arctic Report*

The *Arctic Report* criticizes any required use of SSRW at great length and in considerable detail. Some of these criticisms are excerpted in the Appendix to these CRE Comments. A few of the more salient criticisms are set forth below.

The *Arctic Report* explains that there are

> "Recent Technical Advances in Source Control
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> Additional well control devices and techniques are now available that are independent of the controls on the drilling rig. Examples of these devices are capping stacks that are deployed after an incident to stop the flow from the well and subsea isolation devices installed before the well encounters potential hydrocarbon-bearing zones in addition to standard BOP. These systems offer a dramatic reduction in worst case discharge volumes because they are designed to stem the flow of oil in a matter of minutes, hours, or days versus weeks or months. ***Consequently, they can provide a superior alternative to the requirement for same season relief well and/or oil spill containment systems."*** [2]

The *Arctic Report* further explains that harsh Arctic conditions could render SSRW impracticable:

> "In Arctic environments, it may be more prudent from an environmental standpoint to focus on prevention and alternate methods than on a relief well plan. Prevention through prudent well design and operations should be the primary method for containment. Alternate methods such as capping stacks or subsea shutoff devices are a secondary method of spill mitigation and containment. A relief well under good weather conditions may take 30 to 90 days plus rig mobilization, whereas a capping stack could be installed significantly sooner, and a subsea shut-in device could be activated in minutes."[3]

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[2] *Arctic Report*, pages 41-42, at http://www.npcarcticpotentialreport.org/pdf/AR_Exec_Summary.pdf (emphasis added).
[3] *Arctic Report,* page 8-19 at http://www.npcarcticpotentialreport.org/pdf/Arctic_Potential_Part_2.pdf .

The *Arctic Report* notes that even in much milder climates like the Gulf of Mexico, relief wells do not have a history of success:

> "The Minerals Management Services published two papers (Izon, 2007; Danenberg, 1993) on statistical data for blowout wells in the outer continental shelf of the United States. These studies covered the 35 years from 1971 to 2006. These reports state, 'Although relief wells were initiated during several of the blowouts, all of the flowing wells were controlled by other means prior to completion of the relief wells.'"[4]

The *Arctic Report* warns that SSRW requirements could inhibit oil and gas activities in the Arctic:

> "There are several policy and regulatory challenges that inhibit prudent development of the offshore Arctic. Offshore drilling season not based on drilling system capability – The prescriptive provision for a same season relief well with drilling limited to the open water season currently defines the latest date that the hydrocarbon bearing zone can be entered, which further challenges the lease terms."[5]

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> "Economic Viability
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> Prudent development in the offshore Arctic requires exploration activity and success to find an oil accumulation of sufficient size and quality to justify the substantial investments required to develop in a remote location. This section includes recommendations that could enable economically viable exploration and development.
>
> Technologies to Safely Extend the Drilling Season
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> Extending the drilling season available for exploration in the U.S. offshore Arctic is vital to economic exploration and subsequent development. In addition to the limitations on the drilling season posed by the physical Arctic conditions, concerns regarding oil spill response in ice and the requirement for a same season relief well in ice-free conditions further limit the time available to drill exploration wells."[6]

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[4] *Arctic Report,* page 8-19 at http://www.npcarcticpotentialreport.org/pdf/Arctic_Potential_Part_2.pdf .
[5] *Arctic Report*, page 8-21 at http://www.npcarcticpotentialreport.org/pdf/Arctic_Potential_Part_2.pdf .
[6] *Arctic Report*, page 50 at http://www.npcarcticpotentialreport.org/pdf/AR_Exec_Summary.pdf .

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> "Two areas that the industry has identified as impediments to prudent development of the offshore Arctic are the requirements for a same season relief well (SSRW) and the need to have oil spill response capability equal to a worst-case discharge scenario."[7]

The *Arctic Report* was published shortly after BSEE proposed the Arctic rules. Consequently, BSEE did not consider and address the *Report* in the proposed rules or their administrative record.

BSEE should reconsider the proposed Arctic rules in light of the *Arctic Report*.

BSEE's reconsideration should extend to BSEE's Cost Benefit Analysis of the rules. Based on the *Arctic Report*, SSRA could inhibit and perhaps preclude Arctic oil and gas activities. BSEE should revise its Cost Benefit Analysis for the Arctic rules to address and consider this possibility.

B) BSEE's Proposed Rules Do Not Have an Administrative Record that Supports Them

We can't find any administrative record demonstrating the effectiveness and superiority of SSRW. The absence of such a record violates several administrative law requirements.

The Administrative Conference of the United States ("ACUS") published a report entitled *Agency Practices and Judicial Review of Administrative Records in Informal Rulemaking (May 14, 2013)*. This ACUS Report emphasizes the importance of an administrative record supporting an agency's decision:

> "As a general proposition – one considered throughout this study – 'a court reviewing an agency decision is confined to the administrative record compiled by that agency when it made the decision.'36
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> The rationale for this 'record rule' is that the reviewing court, when considering a rule that an administrative agency is authorized by law to promulgate, should have before it nothing more than the materials that were before the agency when it made its decision, and should not substitute its opinion for that of the agency.37

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[7] *Arctic Report,* page 8-21, at http://www.npcarcticpotentialreport.org/pdf/Arctic_Potential_Part_2.pdf .

> Put procedurally, when a court reviews an agency determination, the facts are provided to the court in the administrative record and there are no disputed facts for the court to resolve.38 ***'[T]he function of the district court is to determine whether or not as a matter of law the evidence in the administrative record permitted the agency to make the decision it did.'39"***
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> "36 Nat'l Audubon Soc'y v. Hoffman, 132 F.3d 7, 14 (2d Cir. 1997) (citing Florida Power & Light Co. v. Lorion, 470 U.S. 729, 743 – 44 (1985)).
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> 37 SEC v. Chenery Corp., 332 U.S. 194, 196 (1947).
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> 38 Occidental Eng'g Co. v. INS, 753 F.2d 766, 769 (9th Cir. 1985).
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> 39 Id."[8]

The current administrative record does not permit BSEE to decide to promulgate the SSRW requirements.

BSEE cites several documents in its Federal Register notice of the proposed Arctic rules.[9] As discussed below on a document-by-document basis, these cited documents do not provide any technical, scientific or other evidence that SSRW are practicable and the best available technology for Arctic oil and gas. Some of them suggest that SSRW do not work well, even in much milder climates than the Arctic.

The *Arctic Council, Arctic Offshore Oil and Gas Guidelines (2009),* simply state at page 46:

> "Relief Well Arrangements - The operator should outline his immediate response to a well control incident or blowout. Also, the operator should demonstrate the availability of the necessary equipment, and support systems to be utilized.[10]

The National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (2011) mentions relief wells a number of times, but they are not mentioned in the

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[8] ACUS Report, pages 6-7 (emphasis added), at https://www.acus.gov/sites/default/files/documents/Agency%20Practices%20and%20Judicial%20Review%20of%20Administrative%20Records%20in%20Informal%20Rulemaking.pdf .

[9] *E.g.,* 80 FR 9916, 9924 (Feb. 24, 2015) (documents listed in second column), at http://www.gpo.gov/fdsys/pkg/FR-2015-02-24/pdf/2015-03609.pdf .

[10] http://www.thecre.com/forum13/wp-content/uploads/2015/04/AOOGG2009.pdf .

"recommendations" section.[11] Moreover, the Macondo well was eventually controlled through a static kill, and not a relief well.[12] And this report actually criticized reliance on a relief well strategy:

> "2. The Need to Strengthen Industry's Spill Preparedness
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> Beyond attempting to close the blowout preventer stack, no proven options for rapid source control in deepwater existed when the blowout occurred. BP's Initial Exploration Plan for the area that included the Macondo prospect identified only one response option by name: a relief well, which would take months to drill. Although BP was able to develop new source-control technologies in a compressed timeframe, the containment effort would have benefited from prior preparation and contingency planning."[13]

The Ocean Energy Safety Advisory Committee Recommendations (2013) cautions that:

> "Regarding scenario planning, the environmental conditions in the Arctic OCS may limit the applicability and effectiveness of containment options (i.e., capping stacks, domes and relief wells) available in the deepwater GOM."[14]

DOI's 60-Day Report (2013) does not provide any technical, scientific or other evidence that SSRW are practicable and the best available technology for Arctic oil and gas.[15]

The Working Group's report entitled *Managing for the Future in a Rapidly Changing Arctic, A Report to the President'' (March 2013)* does not mention relief wells.[16]

The National Arctic Strategy (May 2013) does not mention relief wells.[17]

The Arctic Council, Arctic Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture (March 2014) does not provide any technical, scientific or other evidence that SSRW are practicable and the best available technology for Arctic oil and gas.[18]

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[11] The final report is available at http://www.eoearth.org/files/152501_152600/152587/full_report.pdf .
[12] *Id.*, page 167.
[13] *Id.*, page 273.
[14] Page 9 at http://www.bsee.gov/uploadedFiles/BSEE/About_BSEE/Public_Engagement/Ocean_Energy_Safety_Advisory_Committee/OESC%20Recommendations%20January%202013%20Meeting%20Chairman%20Letter%20to%20BSEE%20012513.pdf.
[15] http://www.doi.gov/news/pressreleases/upload/Shell-report-3-8-13-Final.pdf.
[16] http://www.afsc.noaa.gov/publications/misc_pdf/iamreport.pdf.
[17] https://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf.
[18] http://www.thecre.com/forum13/wp-content/uploads/2015/04/AOOGG2014.pdf

BSEE's Federal Register notice also cites BSEE *Arctic Research* as the technological basis of these rules. [19] This research does not provide any technical, scientific or other evidence that SSRW are practicable and the best available technology for Arctic oil and gas.

BSEE's Federal Register notice also cites "draft proposed API RP 2N, Third Edition."[20] That API report is not final, and should not be relied on until it is. Moreover, current API RP 2N does not mention SSRW.[21]

BSEE's Federal Register notice also states, "BSEE is considering incorporating by reference ISO 19906 in lieu of API RP 2N, Third Edition."[22] ISO 19906 does not provide any technical, scientific or other evidence that SSRW are practicable and the best available technology for Arctic oil and gas. BSEE also should not rely on ISO 19906 for the proposed rules because it "does not apply specifically to mobile offshore drilling units":

> "While ISO 19906:2010 does not apply specifically to mobile offshore drilling units (see ISO 19905-1), the procedures relating to ice actions and ice management contained herein are applicable to the assessment of such units."[23]

We understand that the proposed and existing rules allow operators to "request approval of alternative compliance measures."[24] However, the proposed rules are based on compliance with SSRW unless BSEE allows otherwise on a case-by-case basis, and we have found no administrative record that supports SSRW in the Arctic.

If we have somehow overlooked the record support for SSRW, then we ask BSEE to publicly identify that part of the administrative record that BSEE believes supports SSRW in the Arctic. BSEE should allow additional public comment on this hypothetical record if and when the record is publicly identified.

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[19] 80 FR 9918 (column 3), at http://www.gpo.gov/fdsys/pkg/FR-2015-02-24/pdf/2015-03609.pdf .
[20] 80 FR 9933, at http://www.gpo.gov/fdsys/pkg/FR-2015-02-24/pdf/2015-03609.pdf.
[21] See http://www.techstreet.com/products/9317?product_id=9317&sid=goog&gclid=CNbQ0P2u7sQCFdgQgQodyVAA_w .
[22] 80 FR 9933, at http://www.gpo.gov/fdsys/pkg/FR-2015-02-24/pdf/2015-03609.pdf .
[23] http://www.iso.org/iso/catalogue_detail.htm?csnumber=33690 .
[24] 80 FR 9941, at http://www.gpo.gov/fdsys/pkg/FR-2015-02-24/pdf/2015-03609.pdf .

III. Recommended Actions

BSEE should take all actions necessary to correct the errors and omissions identified in CRE's incorporated ICR comments, which are Document BSEE-2013-0011-0015 in this docket. These actions include but are not limited to withdrawing the two ICRs addressed by CRE's ICR comments.

If BSEE believes that there is a record supporting SSRW for the Arctic, then BSEE should identify that record and allow additional public comment on it. If BSEE cannot identify such a public record, then BSEE should withdraw its proposed SSRW rules.

BSEE should reconsider the SSRW and their Cost Benefit Analysis in light of the *Arctic Report,* and develop a public record that responds to the *Report.*

We think you for the opportunity to submit these comments.

The Center for Regulatory Effectiveness
www.TheCRE.com

APPENDIX TO
CRE'S COMMENTS ON PROPOSED ARCTIC DRILLING RULES:
CRITICISMS OF SAME SEASON RELIEF WELL FROM NATIONAL PETROLEUM COUNCIL REPORT: *ARCTIC POTENTIAL—REALIZING THE IMPORTANCE OF U.S. ARCTIC OIL AND GAS RESOURCES*

"There are technologies available to substantially extend the useful annual drilling season while maintaining operational safety and enhancing environmental protection. These technologies fall into two broad categories: Advanced Well Control and Oil Spill Response. As discussed in Key Finding 7 on oil spill prevention and response, technologies have been developed that can offer superior protection with shorter implementation time than a relief well. These technologies include subsea isolation devices and capping stacks. Furthermore, there have been advances in oil spill response techniques designed for operations in ice.

Page 30, at http://www.npcarcticpotentialreport.org/pdf/AR_Exec_Summary.pdf .

"Industry and regulators should work together with government agencies and other stakeholders to synthesize the current state of information and perform the analyses, investigations, and any necessary demonstrations to validate technologies for improved well control. Canada is using an approach described in the text box entitled 'Evaluating Same Season Relief Well Equivalency.' − The benefits and risks of advanced control technologies should be assessed relative to the current practice of a same season relief well. Alternatives include subsea shut-in devices independent of the standard blowout preventer. These alternatives could prevent or significantly reduce the amount of spilled oil compared to a relief well, which could take a month or more to be effective. This assessment should consider the benefits and risks of leaving the well secured using these technologies over the winter season. DOE should work with industry and DOI to perform this assessment, engaging the National Laboratories, the National Academies, and other stakeholders as appropriate. Assessment techniques could include those used in the nuclear, aviation, and petrochemical industries, such as precursor analysis and quantitative risk assessment, where the DOE already has expertise. − Future regulation and permit requirements should be informed by the results of this analysis including required demonstrations and testing. DOI, DOE, and the National Laboratories should witness these demonstrations of improved well control devices and include appropriate observers from the stakeholder community."

Page 46, at http://www.npcarcticpotentialreport.org/pdf/AR_Exec_Summary.pdf .

"In the course of this study, the technology working groups identified a number of areas where current regulations disallow or restrict currently available alternative solutions and would thus not give incentives for ongoing improvement or wide dissemination of new

technologies. The following are the principal examples identified, most relevant to Arctic operations…

- Regulatory or permit requirements for same season relief well capability do not recognize more effective and lower environmental impact capping and containment solutions.

- Well control regulations do not account for post-Macondo standards in capping and containment.

- Regulations covering oil spill response do not take into account the capacity of the platform to store oil resulting from a loss of well control when calculating worst case discharge outcomes and thus response requirements.

- Regulations do not allow advanced technology deployment for pipelines such as advanced integrity inspection, leak detection, and variable geometry of the pipeline to reduce the potential for gravity-induced loss of oil to the ocean in the event of a leak…

- Allowed oil spill responses in regulation only include mechanical recovery when more effective solutions are available and can be enhanced further with technology development."

Page 4-9 at http://www.npcarcticpotentialreport.org/pdf/Arctic_Potential_Part_1.pdf .

"Fundamentally, drilling practices to protect against a loss of well control incident are the same for Arctic wells as they are elsewhere in the world. While specific Arctic challenges such as ice conditions, cold temperatures, and remoteness can affect equipment selection and logistics, the design and construction of a well and the controls and barriers used to prevent incidents are common to worldwide best practices. These barriers and controls include regulated and industry standard well designs including casing, cement, and mud to contain formation pressures. Additionally, continuous monitoring of critical parameters during drilling is also performed. Furthermore, barriers such as blowout preventers, which can rapidly shear well pipe and close the well in the case of a loss of well control event, are also used. In the unlikely event that these methods fail, recent technological advances in additional well secure techniques such as capping stacks and subsea isolation devices have been shown to secure a well safely, more efficiently, and with less oil spilled than is possible with a relief well. Technological advances, as discussed in Chapter 8, that could be used as alternatives to a SSRW include capping stacks (the device ultimately used to stop the flow of oil from the Macondo well) and subsea isolation devices. The use of these technologies can significantly reduce the amount of spilled hydrocarbons, compared to a relief well as they can be implemented in a matter of hours, days, or weeks upon the loss of well control, compared to a relief well, which can take more than a month. Extending the drilling season would be based on the capability of these systems to operate safely and reliably in an Arctic environment.

Furthermore, post-Macondo, the DOI has issued NTL 2010-1012 which requires that wells must be designed to be capped, and if not, contained. Additionally, if these technologies can be used to safely extend the drilling season length the resulting increase in cost effectiveness provides greater incentive for companies to invest as the longer drilling season provides a greater likelihood of completing the necessary exploration and appraisal program required to advance the project to the development phase. In the unlikely event of a loss of well control resulting in an oil spill, there are many field demonstrated techniques that are effective in ice. As discussed in Chapter 8, industry and government sponsored research show a variety of oil spill response methods, including mechanical recovery, in-situ burning, use of dispersants, and remote sensing to detect oil in and under ice, that are all effective in ice, as demonstrated with field trials in Canada and Norway."

Pages 4-14 and 4-15 at
http://www.npcarcticpotentialreport.org/pdf/Arctic_Potential_Part_1.pdf .

"Figure 4-4. Example Timeline Assuming a Capping Stack/Subsea Isolation Device Instead of a Same Season Relief Well

This increase in the drilling season length could significantly increase the likelihood of completing the drilling and appraisal of an exploration well within a single operating season. This has the potential to significantly reduce exploration drilling costs and, in turn, increase the economic attractiveness of these otherwise very costly projects."

Page 4-18 at http://www.npcarcticpotentialreport.org/pdf/Arctic_Potential_Part_1.pdf .

"Additional well control devices and techniques are now available that are independent of the controls on the drilling rig. Combined with performance-based risk assessment, these systems offer a dramatic reduction in worst-case discharge volumes and form a superior alternative to the requirement for same season relief well and/or oil spill containment systems. Such measures do not provide ultimate well kill and may not obviate the need for a relief well, but they do reduce urgency such that there is no net risk benefit to killing the well in the same season. Examples of these devices are capping stacks that that can be quickly deployed after an incident and subsea shut-in devices that are installed on the well during the drilling process. Multiple spill prevention measures and barriers are currently designed into the wells, and these barriers are defined and specified in API/ISO standards and U.S. offshore regulations. Drilling fluid, casing design, cement, and other well components are the primary barriers and the blowout preventers (multiple redundancies) are the secondary barriers to prevent a release to the external environment."

Page 8-2, at http://www.npcarcticpotentialreport.org/pdf/Arctic_Potential_Part_2.pdf .

8.1.10.6 Relief Well Drilling

A relief well is a directional well drilled to communicate with a nearby uncontrolled (blowout) wellbore and control or stop the flow of reservoir fluids. If it is assumed that the original rig is disabled, a second rig would need to be mobilized and brought into proximity of the flowing well. The second rig will need to be equipped with casing, cement, drilling fluids, and wellhead equipment to construct the relief well. The Minerals Management Services published two papers (Izon, 2007; Danenberg, 1993) on statistical data for blowout wells in the outer continental shelf of the United States. These studies covered the 35 years from 1971 to 2006. These reports state, 'Although relief wells were initiated during several of the blowouts, all of the flowing wells were controlled by other means prior to completion of the relief wells'. Also, 'significant volumes of liquid hydrocarbons were not associated with any of the drilling blowouts'. The reports state that 'continued success will depend on sustained efforts by industry and government to improve safety management practices related to drilling and well control'. The federal government and the offshore industry significantly adjusted the regulations and standards in the United States after the Macondo incident in 2010. In Arctic environments, it may be more prudent from an environmental standpoint to focus on prevention and alternate methods than on a relief well plan. Prevention through prudent well design and operations should be the primary method for containment. Alternate methods such as capping stacks or subsea shutoff devices are a secondary method of spill mitigation and containment. A relief well under good weather conditions may take 30 to 90 days plus rig mobilization, whereas a capping stack could be installed significantly sooner, and a subsea shut-in device could be activated in minutes. Some regions of the world (e.g., Canada) specify a same season relief well (SSRW) capability for Arctic drilling. In the Arctic, a similar, and in some cases higher, level of protection to a SSRW may be achieved with appropriate well designs which are executed with the right equipment, best available technology, and utilizing proven drilling practices by personnel who are trained and competent. Both Chevron Canada and Imperial Oil Resources have requested an equivalent approach to the SSRW for the Canadian Beaufort Sea that includes incident prevention as well as securing the well and response plans."

Page 8-19 at http://www.npcarcticpotentialreport.org/pdf/Arctic_Potential_Part_2.pdf .