



CONSULTATIVE SESSIONS WITH STAKEHOLDERS ON THE PROPOSED PRICING OF SAFETY MANAGEMENT PLANS

Submitted by: Jim Allaway Leader- Stakeholder Engagement Programs
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TABLE OF CONTENTS

Executive Summary	1
Introduction	7
The Consultation Process	8
• Methodology	
• Quantitative Output	
• Qualitative Output: Process Evaluation	
• Qualitative Output: Stakeholder Consultation Sessions	
• Qualitative Output: Discussion Paper Feedback	
Industry Stakeholder Feedback and Input	10
• Summation of Industry Stakeholder Feedback	
• Addressing Industry Stakeholder Feedback	
Post Stakeholder Engagement Activities & Next Steps	13
APPENDIX A: Consolidated Summary of Stakeholder Concerns	i
APPENDIX B: Discussion Paper & Supplementary Readings	vii



EXECUTIVE SUMMARY

The table below outlines a consolidated summary of the recurring issues raised by industry stakeholders during the Safety Management Plan Fee Schedule consultation process. The table also outlines the BC Safety Authority's response to each issue and any action taken.

Fees	
Issue	BC Safety Authority Response & Action Taken
<p>Value Proposition In a broad context, the BC Safety Authority needs to better explain how a Safety Management Plan would be more advantageous from a safety and business acumen for industry.</p>	<p>Prescriptive regulations and related Codes and Standards are minimum requirements that must be met to achieve the objectives of the Safety Standards Act. Alternative Safety Approaches enable innovation, which can significantly enhance safety outcomes; improve a company's safety culture; achieve cost reduction and improved operational efficiencies.</p>
<p>Fee Synergy Capabilities Industry looking for flexibility; preferring a program-wide application (multiple sites) rather than a single site application.</p>	<p>The Alternative Safety Approaches - Safety Management Plan fee components include the application fee, assessment fee and oversight fees. The application fee and assessment fee are not based on site. The oversight fee is determined based on site size and assessed hazard category. The site is defined as the location associated with the regulated product or work managed by a single entity. The location can be one specific plant or building or it can be geographically distributed. Site as defined under a Safety Management Plan may equate to multiple sites or one site under prescriptive regulation.</p>
<p>Clarity on Fee Application Industry requesting better explanation of function and deliverables for each fee application: application fee, submission evaluation fee and particularly the oversight fee.</p>	<p>The explanation is as follows:</p> <ul style="list-style-type: none"> • Application fee amount is based on the costs to process, review and accept the ASA application. • Evaluation fee is an hourly rate based fee, as the evaluation effort will depend on the size and complexity of the proposed Safety Management plan. We do expect to be able to provide a reasonable estimate of this fee amount to a proponent at the time of acceptance of the application. • The Annual Oversight fee is based on our costs to provide oversight services. These services include Safety Management Plan monitoring, audit / assessment, report writing and client contact. The Safety Management Plan- Hazard Level determines



	the frequency of audit / assessment oversight (Hazard Level 3 sites, which are the highest level, will be subject to annual oversight) and the site size will determine the duration of the oversight.
Fee Stability Will annual fee oversight remain over life of a Safety Management Plan or will there be additional fees?	Annual oversight fees charged are based on fee schedules in effect. As such, annual oversight fees may change with approved fee increases. The BC Safety Authority's fee setting process will ensure that stakeholders have the opportunity to be informed and provide feedback should a fee change be proposed. All fee changes require the approval of the BC Safety Authority's Board of Directors.
Premium Service Number of industry stakeholders defined Safety Management Plan as another form of regulating industry and as such should not be a premium service.	Alternative Safety Approaches- Safety Management Plan is considered a premium service offering. Unlike the traditional regulatory approach, a Safety Management Plan is a co-management approach to ensuring safety. It provides the owner/operator the flexibility to manage their operations. In addition, the program offers a higher level of expertise and a higher level of management involvement than other services offered by the BC Safety Authority.

Service Delivery	
Issue	BC Safety Authority Response & Action Taken
Boilers & Pressure Vessels Tables vs One Table Number of stakeholders stated that they couldn't understand why there are two fee tables and would prefer one fee table for Boilers and Pressure Vessels, as they considered the dollar values were not substantially different for each.	BC Safety Authority has taken the feedback from stakeholders and combined both tables into one single table
Hazards & Risks A number of stakeholders raised the issue of separating the hazard category from the company's risk mitigation plans. The BC Safety Authority needs to clarify this issue.	Hazards and Risk are inextricably linked. Identification of and assessment of the impact of the site hazards, should a catastrophic failure occur, are fundamental building blocks of the Safety Management Plan. These hazards are a characteristic of the site and are always there while the facility is operational, unless removed or reduced through a fundamental system redesign (as opposed to risk control systems add on). The impact of these hazards on people and property is used to derive the site hazard category, which determines the BC Safety Authority proposed frequency of oversight of the Safety Management Plan.

	Acceptance of a Safety Management Plan by the BC Safety Authority is contingent on how well the Safety Management Plan mitigates the risks associated with the hazards.
Hazard Level Thresholds & Site Sizes Stakeholders anticipated that the BC Safety Authority would define and explain the differences between both what the hazard tiers and sites sizes would encompass. There is a need to clarify these issues.	These items have now been clarified and are included in the Alternative Safety Approaches Guidance material, which will be available on our website shortly
BC Safety Authority Capacity At times, stakeholders offered the perspective that they did not necessarily think that the Safety Authority was fulfilling its present obligations and wondered how it would have the capacity to take on this new specialized approach. The BC Safety Authority needs to explain its existing risk-based approach and how it will acquire the capacity to deliver these new services.	The BC Safety Authority has estimated the level of effort that will be needed to provide oversight services and the resources to support this work will be included in our annual business plans.
Differentiations Consistently, stakeholders expressed confusion about the various options: Equivalent Standards Approach, Safety Management Plan and the existing Equivalent Standards Agreement. Stakeholders need to be provided a simple fact sheet on these terms as well as all other pertinent terms within the Alternative Safety Approaches paradigm.	The Safety Management Plan Guidance material (currently being finalized) includes descriptions of Safety Management Plan and Equivalent Standard Approach and how they are different.

General	
Issue	BC Safety Authority Response & Action Taken
Mandatory Nature While stakeholders understood that Alternative Safety Approaches is presently optional and voluntary, many raised the question of whether and/or when it will become mandatory. Need to provide a statement on this issue.	The Alternative Safety Approaches are an optional regulatory tool that a client may elect to utilize. Any future changes to the <i>Safety Standards Act</i> that might require Alternative Safety Approaches would be required to follow normal procedures for legislative change, including public consultation and review by legislature.
Cross Industry Accessibility A number of stakeholders raised the notion of competitive edge. They queried why a small industry sector like bio-	The initial implementation of Alternative Safety Approaches within the greenfield bioenergy industry was designed to ensure that a key group of the provincial government's energy strategy are prioritized to access



energy would initiate this approach when other existing non-bio-energy companies would also be ready to apply. The BC Safety Authority needs to address this issue.

BC Safety Authority resources. Alternative Safety Approaches will be expanded to other sectors later in 2011 and the BC Safety Authority will conduct an additional external 'brownfield' exemplar program at that time.

Alternative Safety Approaches – Safety Management Plan Fees

The approved Safety Management Plan fee schedule incorporates two changes resulting from the Alternative Safety Approach-Safety Management Plan Fee consultation:

1. During consultation one of the comments consistently received by stakeholders was that separate fee tables for Boilers and Pressure Vessels was confusing. As a result the Boiler and Pressure Vessel fee tables were merged and fees adjusted;
2. After considering feedback from stakeholders, the site size thresholds have been set and are now noted on the Safety Management Plan Oversight fee schedule.

The approved Alternative Safety Approach fee schedule now incorporates Equivalent Standard Approach fees.

Equivalent Standard Approach clients will continue to require operating permit and as such will continue to pay the required fees as laid out in the respective technology fee schedule. The Alternative Safety Approaches' application & assessment fees consulted on during the Safety Management Plan fees consultation apply for both Safety Management Plans and Equivalent Standard Approach and additional oversight required for the accepted Equivalent Standard Approach will be billed at the Alternative Safety Approach hourly rate.

The chart on the following page describes the approved fee schedule for both Safety Management Plans and Equivalent Standard Approach:



BC SAFETY AUTHORITY
FEE SCHEDULE: ALTERNATIVE SAFETY APPROACHES
SAFETY MANAGEMENT PLANS AND EQUIVALENT STANDARD APPROACHES
 Effective: July 20, 2011

DESCRIPTION	2011 FEE	UNITS	HST
Applications			
Program Application Fee	\$ 2,000	per application	Yes
Program Renewal Fee	\$ 2,000	per application	Yes
Program Extension Fee - prorated based on Annual Fee x time period of extension		per SMP	Yes
Assessment Services			
Evaluation Fee (Time plus expenses)	\$ 215	Hourly Rate	Yes
Annual Oversight Pricing - Safety Management Plans (SMP)			
Based on hazard assessment level and measure of system energy			
Boiler & Pressure Vessel	Table A	per site	Yes
Electrical	Table B	per site	Yes
Propane (based on site and hazard assessment level)	Table C	per site	Yes
Annual Oversight Pricing - Equivalent Standard Approaches (ESA)			
Permitting and licencing fees		per applicable technology fee schedule	No
Monitoring time and expenses - (4 hour minimum)	\$ 215	Hourly Rate	Yes
Notes to Fee Schedule			
Hourly Rates			
Administrative Rate			
Normal working hours, inclusive except holidays, per hour	\$ 54	Hourly Rate	Yes
Overtime working hours Saturdays & Sundays inclusive except holidays and Monday to Friday inclusive, 4:30 p.m. to 8:00 a.m., per hour	\$ 81	Hourly Rate	Yes
Holiday working hours, per hour	\$ 108	Hourly Rate	Yes
Professional Rate			
Normal working hours, inclusive except holidays, per hour	\$ 215	Hourly Rate	Yes
Overtime working hours Saturdays & Sundays inclusive except holidays and Monday to Friday inclusive, 4:30 p.m. to 8:00 a.m., per hour	\$ 323	Hourly Rate	Yes
Holiday working hours, per hour	\$ 430	Hourly Rate	Yes
Plus expenses incurred, where applicable. Fees are non-refundable.			

**BC SAFETY AUTHORITY
2011 FEE SCHEDULE: ASA- SMP ANNUAL OVERSIGHT PRICING
Effective: July 20, 2011**

Table A: Boilers & Pressure Vessels			
Pricing is per site based on the primary driver of system energy. For Boilers system energy is calculated based on output. For Pressure Vessels system energy is calculated based on capacity.	Assessed Hazard Level		
	1	2	3
Small - Less than 10 megawatts	3,500	10,750	25,500
Medium - 10 to 75 megawatts	6,500	20,000	45,000
Large - Greater than 75 megawatts	10,500	32,500	67,500

Table B: Electrical			
Pricing is per site based on system energy capacity	Assessed Hazard Level		
	1	2	3
Small - Less than 10 megawatts	2,500	5,000	10,000
Medium - 10 to 75 megawatts	3,000	7,500	12,500
Large - Greater than 75 megawatts	3,500	10,000	15,000

Table C: Propane			
Pricing per site	Assessed Hazard Level		
	1	2	3
Propane storage and handling sites	1,500	5,000	15,000



INTRODUCTION

In June 2010, the Province of British Columbia made changes to the *Safety Standards Act* that enabled the use of Alternative Safety Approaches. Under this approach, an owner/operator may choose one of two options:

- **Option 1: Safety Management Plan:** permits an owner/operator to operate an entire and/or sections of a facility that provides for a level of safety consistent with the objectives of the *Safety Standards Act*.
- **Option 2: Equivalent Standards Approach** that permits an owner/operator to substitute one identifiable regulation or code requirement for another identifiable requirement as specified in the regulation within a single technology.

During July and August 2010, the BC Safety Authority conducted a series of province-wide sessions on the Safety Management Plan with a focus on the establishment of regulations, policies and procedures required to implement Safety Management Plans.

In November 2010, the BC Safety Authority published a report on the issues and actions undertaken to address the issues identified at the consultation sessions.

During January and February 2011, the BC Safety Authority conducted a series of stakeholder sessions with regards to a proposed pricing model for Safety Management Plans. This report outlines the issues raised by stakeholders and the BC Safety Authority's actions to address the issues.

In addition to being prepared for an April 1, 2011 launching of the Safety Management Plans option, the BC Safety Authority is addressing the transition of existing Equivalent Standards Agreements to the new Equivalent Standards Approach and the availability of this second option for the fall, 2011.



THE CONSULTATION PROCESS

Methodology

- Two documents (discussion paper on proposed Safety Management Plan fee schedule and a service delivery information package) were e-mailed to 464 stakeholder;
- Posting on the BC Safety Authority website informed readers of the Safety Management Plan Proposed Fee Schedule consultation process, listing times and locations of public sessions. As well, support documentation was posted;
- Four public stakeholder sessions were conducted throughout the province. Locations being Prince George, Vancouver, Nanaimo and Kelowna;
- Consultation period was from January 4, 2011 to February 25, 2011

Quantitative Output

- 4 stakeholder consultation sessions with 35 attendees;
- 30 attendees completed consultation session evaluation form;
- 15 stakeholders completed discussion paper feedback forms;
- 6 stakeholders and 1 professional association sent an e-mail or letter feedback.

Qualitative Output: Process Evaluation

- Evaluative feedback was divided into three categories: positive, neutral or negative responses for each of the process categories and results were:

Evaluation Category	Positive	Neutral	Negative	No Response
Understanding of SMP increased due to session	83%	10%	7%	-----
Facilitator was professional & respectful	97%	-----	3%	-----
Presenters were knowledgeable & helpful	97%	3%	-----	-----
Sufficient opportunity to ask questions	90%	3%	-----	7%
Answers were succinct & clear	80%	7%	10%	3%
Overall, the session was professional & informative	93%	3%	-----	3%

Qualitative Output: Stakeholder Consultation Sessions

- Total of 166 comments were recorded at the 4 consultation sessions. Input/feedback from attendees were divided into similar categories as above and the results were:

Evaluation Category	Positive	Neutral	Negative	Total
Fee-related comments/questions	13%	76%	11%	37
Service delivery-related comments/questions	----	93%	7%	90
General-related comments/questions	5%	77%	18%	39
Overall evaluation	4%	86%	10%	166

Qualitative Output: Discussion Paper Feedback

- Total of 25 comments were received on the discussion paper. Feedback was divided into three categories: fee-related comments/questions, service delivery-related comments/questions and general comments/questions. Each of these categories were defined as positive, neutral or positive responses and the results were:

Evaluation Category	Positive	Neutral	Negative	Total
Fee-related comments/questions	----	20%	80%	5
Service delivery-related comments/questions	----	50%	50%	8
General-related comments/questions	50%	44%	----	12
Overall evaluation	24%	44%	32%	25



INDUSTRY STAKEHOLDER FEEDBACK AND INPUT

Summation of Industry Stakeholder Feedback

Appendix A: Consolidated Summation of Concerns raised by Industry Stakeholders provides a consolidation of the stakeholders' input from the four public consultation sessions and other forms of feedback. The feedback is divided into three themes that reflect the content of the consultation sessions: fee-related issues, service delivery-related issues and a more general-related issues. An explanation of the specific issues raised under the themes are identified below.

Recurring Issues as Identified by Industry Stakeholders:

Theme: Fees

Issues:

1. Value Proposition

In a broad context, the BC Safety Authority needs to better explain how a Safety Management Plan would be more advantageous from a safety and business acumen for industry.

2. Fee Synergy Capabilities

Industry looking for flexibility; preferring a program-wide application (multiple sites) rather than a single site application.

3. Clarity on Fee Application

Industry requesting better explanation of function and deliverables for each fee application: application fee, submission evaluation fee and particularly the oversight fee.

4. Fee Stability

Will annual fee oversight remain over life of SMP or will there be additional fees?

5. Premium Service

Number of industry stakeholders defined SMP as another form of regulating industry and as such should not be a premium service.

Theme: Service Delivery

Issues:

6. Boilers and Pressure Vessels Tables vs One Table

Number of stakeholders stated that they couldn't understand why there are two fee tables and would prefer one fee table for Boilers and Pressure Vessels, as they considered the dollar values were not substantially different for each.

7. Hazards & Risks

A number of stakeholders raised the issue of separating the hazard category from the company's risk mitigation plans. The BC Safety Authority needs to clarify this issue.

8. Hazard Level Thresholds & Site Sizes

Stakeholders anticipated that the BC Safety Authority would define and explain the differences between both what the hazard tiers and sites sizes would encompass. There is a need to clarify these issues.

9. BC Safety Authority Capacity

At times, stakeholders offered the perspective that they did not necessarily think that the Safety Authority was fulfilling its present obligations and wondered how it would have the capacity to take on this new specialized approach. The BC Safety Authority needs to explain its existing risk-based approach and how it will acquire the capacity to deliver these new services.

10. Differentiations

Consistently, stakeholders expressed confusion about the various options: Equivalent Standards Approach, Safety Management Plan and the existing Equivalent Standards Agreement.

Stakeholders need to be provided a simple fact sheet on these terms as well as all other pertinent terms within the Alternative Safety Approaches paradigm.

Theme: General

Issues:

11. Mandatory Nature

While stakeholders understood that Alternative Safety Approaches is presently optional and voluntary, many raised the question of whether and/or when it will become mandatory. Need to provide a statement on this issue.

12. Cross Industry Accessibility

A number of stakeholders raised the notion of competitive edge. They queried why a small industry sector like bio-energy would have initiate this approach when other existing non-bio-energy companies would also be ready to apply. The BC Safety Authority needs to address this issue.

Addressing Industry Stakeholder Feedback

The table in the Executive Summary of this report identifies the twelve recurring issues raised during the consultation period and the BC Safety Authority response and/or action taken.



POST STAKEHOLDER ENGAGEMENT ACTIVITY AND NEXT STEPS

Since the completion of the stakeholder engagement process on Safety Management Plan Proposed Pricing, the BC Safety Authority has been addressing all the specific stakeholder-defined issues as well as overall planning and preparation for the launching date of April 1, 2011.

Actions taken to date:

- During February-March, an internal exemplar exercise (two small teams using case studies walked through the proposed application and submission process) was conducted resulting in improvements to the Safety Management Plan Guidance Material;
- A more detailed Guidance material related to the application and submission assessment process is being finalized;
- Corollary policy items are being finalized.

Next Steps:

- As of April 1, 2011, the BC Safety Authority is accepting applications for Safety Management Plans from Greenfield bio-energy sector;
- An external bioenergy exemplar exercise will commence in early May;
- The second option- Equivalent Standard Approach will be available commencing September 1, 2011;
- Safety Management Plans for all other sectors will commence January 1, 2011.

APPENDIX A: Consolidated Summary of Comments Raised by Industry Stakeholders

Theme: Fees					
Prince George	Vancouver	Nanaimo	Kelowna	Discussion Paper	Other Feedback
<ul style="list-style-type: none"> • Are there opportunities for fee synergies between different sites to allow for cost savings? Or would fees be charged per site? • What is the fee structure of ESAs compared to SMPs? • For a typical plant, if a pressure vessel is zero, it wouldn't be part of the cost, right? • This is not revenue neutral to us – it needs to be at a price point that makes sense to us. You need to find a way to make it more price advantageous. I do see the value in it, but the price point needs to make sense. • From a revenue perspective, we'll have to look at the fees we're currently paying. There needs to be a huge incentive to shift from what we're paying now. • Does the application fee get us to the acceptance stage? 	<ul style="list-style-type: none"> • If you have a number of processes that are very similar across different sites, and one is approved, would the others be approved under the same plan? Would there be any cost savings? • If you have multiple sites, can you start an SMP with one site, and then add the other sites at another time? • For the hazard rating, what consideration is given to proven existing technology as opposed to new technology? How does this fit into your pricing and hazard tiers? • The set-up fee is understandable. I don't understand the justification for annual fees. • Is the fee structure now based on output? • You described this as premium pricing - how does this compare to current pricing? 	<ul style="list-style-type: none"> • Do the fees apply per site or per company? • Do the fees apply to the output of the equipment? • Are the fees based on consumption or generation? • What about onload /offload peak times? Are fees based on output or capacity? • How would a proponent be charged if the site had two pressure vessels but only one running at any given time? • If fees are based on the primary source of energy and my primary source of energy is the boiler, but want a Safety Management Plan for the powerhouse and pressure vessels, do I pay just for the boilers or also the pressure vessels? 	<ul style="list-style-type: none"> • How do see administering fees, multiple sites or one? 	<ul style="list-style-type: none"> • It is difficult to assess the cost for the evaluation portion of the assessment until BCSA gives an estimate. The applicant has no idea how extensive the BCSA evaluation will be or whether it will be done consistently across the province. The oversight fee seems very high. If adequate internal audit procedures are in place, the oversight fee should be minimal. • What value will a "hazard category 3" client receive for the \$77,500 fee that is proposed for boilers + associated equipment? • What value does BCSA intend to provide in exchange for the fees suggested? Need more info on ESA's. • Discussion Paper was informative. 	<ul style="list-style-type: none"> • The value in the ASA-SMP must align with oil & gas industry business drivers and be at an equivocal or reduced cost to promote its use.

Theme: Fees					
Prince George	Vancouver	Nanaimo	Kelowna	Discussion Paper	Other Feedback
<ul style="list-style-type: none"> What exactly am I getting for the application fee? 	<ul style="list-style-type: none"> Under the current structure, we pay fees and get a permit. Do these costs apply? The objective is safety, correct? If we pay extra to do this, what's the justification of the annual costs? 	<ul style="list-style-type: none"> Since Safety Management Plans are under a five-year term and therefore a five-year commitment, how do I know if the fees are fixed over the next five years? What if the fee schedule changes based on a percentage of CPI? There is a potential cost of \$215/hr for the Safety Management Plan review process. How long would a Safety Management Plan take to review? Is there a limit for the number of hours? How does a proponent budget for that? If a proponent had three similar sites is there possible for cross review? For the risk management aspect of Safety Management Plans, the documentation is similar to the insurance papers we already do, so I don't know where these fees are coming from in terms of costs. 		<ul style="list-style-type: none"> It is very difficult to understand why the Annual Oversight Pricing is so high. I don't see the ASA as a "premium" service, rather it is a logical extension of current BCSA services. The \$87,500 annual fee for a pulpmill site size large tier 3 equates to one employee full-time. How does BCSA's contribution provide an \$87,500 value? 	

Theme: Service Delivery					
Prince George	Vancouver	Nanaimo	Kelowna	Discussion Paper	Other Feedback
<ul style="list-style-type: none"> • Are Boilers and Pressure Vessels considered separate by BCSA? • Is this process different from HAZOP? • Are we able to break up the SMP, so that only part of the site is considered high hazard? • Hazard and risk are two different things in my mind. I disagree that the entire plant should be treated under the same cost structure, because it doesn't seem necessary for all parts of a plant. • I assume BCSA maintains records on alterations of equipment. Would this not be done under SMP? • If risk is extremely low, wouldn't we manage our own risk? If I identify my site as hazard level one, and that isn't accepted by BCSA, how do I proceed? 	<ul style="list-style-type: none"> • What is considered a "site"? • For hazard categories, is the pressure rating categorized according to different levels? • If a boiler stands alone on a large site, it would be considered the primary hazard. Should I assess this on its own, or as part of the larger site? • Energy output is based on energy efficiency. You are penalizing someone with good energy efficiency. • Did you consider the number of pressure vessels at a site? • Is the BCSA putting together a manual of what will be acceptable (e.g. maintenance levels)? Or will we have to constantly come to you with questions? • Is there a correlation between the size and hazard level of plants? Do you take into account "safety's"? Can you do more to reduce fees? 	<ul style="list-style-type: none"> • What happens if an intrinsic hazard is posed involving equipment that does not fall within the BC Safety Authority's jurisdiction? • Is there an ISO or ASME standard for calculating hazard zones? • Is a hospital boiler intrinsically low/med/high because of its location? • Will the BC Safety Authority determine how often they will conduct audits or can the proponent state this in their Safety Management Plan? • Would equipment registry be part of the BC Safety Authority's services as they will not be asking for registration numbers, etc. • Does the hazard level refer to the average of entire site and not for hazardous equipment? • The structure makes sense but proponents would want to know how small/medium/large is defined. 	<ul style="list-style-type: none"> • What is the difference between variance and Safety management plan? • Risk impacts-how do you determine the risk level? • Is the BC safety Authority leaning towards more audits for prescriptive regulated sites, say for boiler plants? 	<ul style="list-style-type: none"> • Structure is reasonable; items like determinations of size and category of hazard need to be finalized. • What constitutes "small", "medium", "large" under Assessed Hazard Category? 	<ul style="list-style-type: none"> • It is unclear how the ASA-SMP proposal will affect our risk-assessed status. Will we be required to develop and submit an ASA or SMP, or is our risk-assessed status still valid? • For new operations that are not fully staffed or do not even have operations staff selected, will the lack of workforce involvement hinder the SMP process? • The discussion on size, hazard, etc was too vague. Instead of a wide open discussion, the BC Safety Authority should have presented a proposal (specific numbers) for discussion.

Theme: Service Delivery					
Prince George	Vancouver	Nanaimo	Kelowna	Discussion Paper	Other Feedback
<ul style="list-style-type: none"> • Are Boilers and Pressure Vessels considered separate by BCSA? • Is this process different from HAZOP? • Are we able to break up the SMP, so that only part of the site is considered high hazard? • Hazard and risk are two different things in my mind. I disagree that the entire plant should be treated under the same cost structure, because it doesn't seem necessary for all parts of a plant. • I assume BCSA maintains records on alterations of equipment. Would this not be done under SMP? • If risk is extremely low, wouldn't we manage our own risk? If I identify my site as hazard level one, and that isn't accepted by BCSA, how do I proceed? 	<ul style="list-style-type: none"> • Do you have some concept of how hazard tiers will be assessed? • How would you assess an urban plant versus a rural plant? • Can we use existing ESAs for new imported technologies? Is there anything that would currently apply to these new technologies? 	<ul style="list-style-type: none"> • When would BCSA give feedback of whether a proponent needs a SMP or only needs an ESA? And from whom would you get the direction from? • Will one person at the BCSA be designated per company? • Is there an appeal process (ie, to the Safety Standards Appeal Board or another body) if a proponent applies for a Safety Management Plan and the BCSA rejects the application? • Where would I find what could terminate the Safety Management Plan? A 5-year term would mean needing commitment from the company because the Safety Management Plan would have to be renewed or fall under prescriptive regulations. • Can a proponent hire their third party auditor rather than the BCSA picking auditors for them? 			<ul style="list-style-type: none"> • The upstream oil & gas industry has many sites of various sizes. The SMP refers to a per site fee. A fee for all programs, independent of the number of sites is preferred. If the BC safety Authority audits the program, all sites, regardless of size, are available in documented records. • Clarity of threshold values is required. • Difference between Equivalent Standards Approaches and Safety Management Plan needs to be defined better. • What is the difference between existing Equivalent Standards Agreement and the new Equivalent Standards Approach? • Will there be a "transition process" for current Equivalent Standards Agreements?

Theme: General					
Prince George	Vancouver	Nanaimo	Kelowna	Discussion Paper	Other Feedback
<ul style="list-style-type: none"> • There is value to me in changing the existing site because I may want to incorporate new products. • Right now, my company relies on BCSA for enforcement and inspection; in terms of inspection under an SMP, the process is internalized, meaning added cost. I'm not sure BCSA could assist or handle this. • Will SMPs be mandatory in the future? • I need to know the timelines of when I can expect to be contacted by BCSA. • This appears to be a very subjective exercise. We're used to the prescriptive regulations, which are not subjective. • Why would I bother with any of this? I wouldn't likely do this with a long-term existing facility, because it would require a major upgrade. 	<ul style="list-style-type: none"> • What's difference between ESA and SMP? • So I can stay with prescriptive regulations, or ESA, or SMP? • Will SMPs include compliance to CSA standards? • Will plant staff qualifications have to change for an SMP? • Is the liability on the plant owner/operator? • Is the template for an SMP available? What is the timeline for this? 	<ul style="list-style-type: none"> • Why isn't the BC Safety Authority opening Alternative Safety Approaches to existing clients and facilities? • Are the regulations for Alternative Safety Approaches being drafted, under review or have they been published? • Are Alternative Safety Approaches going to become mandatory at any time? 	<ul style="list-style-type: none"> • Plan can be put into place but will the BC safety Authority have the resources to keep it going? • BC Safety Authority is not doing inspections now, how are they going to do this? 	<ul style="list-style-type: none"> • I believe this will help companies to take 100% ownership of the safety management. 	



Theme: General					
Prince George	Vancouver	Nanaimo	Kelowna	Discussion Paper	Other Feedback
<ul style="list-style-type: none">Do you expect ESAs to stay as ESAs? Would they become SMPs?					

APPENDIX B: Discussion Paper and Supplementary Readings



PROPOSED FEE SCHEDULE FOR ALTERNATIVE SAFETY APPROACHES-SAFETY MANAGEMENT PLANS

Discussion Paper

Proposed Fee Schedule for Alternative Safety Approaches-Safety Management Plans

1.0 Overview

The Provincial Government of British Columbia has approved changes to the *Safety Standards Act*. The changes give owners and operators of equipment the opportunity to take alternative safety approaches to comply with the objectives of the Act. The options are: 1. Equivalent Standard Approach (ESA) or 2. Safety Management Plan (SMP).

Over the last six months, the BC Safety Authority has consulted with business and industry stakeholders in order to inform stakeholders of this new option and to have their input on the development of new regulations required to oversee alternative safety approaches (ASA). The new regulations will be in place by April 1, 2011, at which time, the BC Safety Authority will be in a position to accept and review applications for safety management plans from 'greenfield' bioenergy companies.

The BC Safety Authority has conducted an extensive literature search on existing forms of safety management plans, best practices in implementing those plans and has formed a team which is designing an appropriate process for implementing a safety management plan. This discussion paper and its supplementary documentation is the culmination of the BC Safety Authority's research and design on the development of a safety management plan that will best work for BC.

2.0 Objective of this Stakeholder Consultation

The primary objective of this consultation is:

Have you be informed and aware of the proposed fee schedule, understand the service delivery components that support it and have an opportunity to provide your feedback/input on all aspects of the proposal.

3.0 Features of Alternative Safety Approaches (ASA)

- Either option, Equivalent Standard Approach or a Safety Management Plan in Alternative Safety Approaches, is voluntary and optional.
- Alternative Safety Approaches will be supported by a dedicated team at the BC Safety Authority.
- There is a pricing structure and corollary services attached to Alternative Safety Approaches.
- In terms of substituting for prescriptive regulations, initially, Safety Management Plans will apply to the Electrical Safety Regulations, Gas Safety Regulations and the Power Engineers, Boiler, Pressure Vessels and Refrigeration Regulations.
- Alternative Safety Approaches is an **objective**-based approach to achieving safety **outcomes** consistent with the objectives of the *Safety Standards Act*.
- Under a Safety Management Plan, the approach can apply to an entire facility or facilities in the three technologies or it can apply to a part of an operation only.
- There are two options under Alternative Safety Approaches:

1. A Safety Management Plan, which is a broad approach, can apply to the safety of an entire facility. Also, a Safety Management Plan can give direction where regulations do not exist;
 2. An Equivalent Standard Approach, which can apply to one aspect of an installation or operation and substitute for existing regulations.
- There is a staged approach for the implementation of Alternative Safety Approaches: commencing with Safety Management Plans for Greenfield bioenergy, then Equivalent Standard Approaches and finally for all industry sectors.
 - All existing Equivalent Standards Agreements will be transitioned into Alternative Safety Approaches within a reasonable period of time.

4.0 Alternative Safety Approaches Value Proposition

Grounded in our research, the BC Safety Authority believes a Safety Management Plan will provide value added for its clients based on the following:

- Alternative Safety Approaches provide an opportunity for new capital investment/growth for British Columbia, which can support and enhance provincial and/or community growth.
- Alternative Safety Approaches provide an opportunity to utilize innovative technology and/or equipment not presently covered under current regulations and standards.
- Alternative Safety Approaches will support the BC Government's Bioenergy Strategy.
- An Alternative Safety Approach is a cooperative regulatory approach as opposed to traditional prescriptive regulation and it enables owner/operator flexibility to manage their operations.
- Safety Management Plans can increase the culture of safety within an organization due to increased safety awareness and workforce involvement in the development and implementation of the plans.

5.0 Proposed Safety Management Plan Fee Schedule

5.1 Working Assumptions

1. The Safety Management Plan fee schedule is still a proposal, which the BC Safety Authority has developed based on a best information available and key pricing assumptions.
2. The Safety Management Plan pricing model incorporates a non-traditional unit of measure. It is a movement away from capturing individual pieces of equipment to a common measure of system energy that reflects facility size for different sectors.

5.2 Guiding Principles

The following principles guided the development of the proposed fee schedule:

- Be, at least, cost neutral to the BC Safety Authority
- Price should vary based on size/effort/complexity
- Safety Management Plan being optional and voluntary is considered a premium service
- Provides clients with a degree of price certainty up front

5.3 Safety Management Plan Pricing Model

The recommended fees include the following:

1. Application\Renewal Fee

A nominal fee which is paid at time of application or renewal. Application Fee is the same amount regardless of size/type of company. Application fee is a non-refundable fee that covers the cost of the BC Safety Authority effort to review initial application and confirm eligibility to proceed to Safety Management Plan development phase. The renewal fee includes the cost of a Safety Management Plan review.

2. Evaluation Fee

A Safety Management Plan Evaluation Fee is based on a cost-recovery of time and expenses, including travel costs should a site visit be required as part of the evaluation. The BC Safety Authority effort to evaluate the plan will be proportional to the facility size, complexity and hazard category. An estimate of the Evaluation Fee will be provided at the time a decision is made on the application eligibility.

3. Annual Oversight Pricing

The annual pricing is based on BC Safety Authority's cost to service delivery and the estimated effort to deliver oversight services product. Clients will receive oversight services such as audits, investigations, monitoring, equipment registry and access to a safety expert. Clients have the opportunity to operate under less prescriptive regulation, have greater control over managing risk, greater flexibility on equipment selection and operating procedures, which enable efficiencies and more streamlined administration with the BC Safety Authority.

The Annual Oversight pricing is a by technology fee, will vary by client and be driven by: size (measure of system energy) and assessed hazard category. Safety Management Plans are considered a premium product offering, which require a higher level of expertise and management involvement than other services provided by the BC Safety Authority.

The Annual Oversight pricing will apply for the duration of the Safety Management Plan contract up to five years and will be subject to approved annual inflationary adjustments of BC Safety Authority fees.

5.4 Proposed Safety Management Plan Fee Schedule

BC SAFETY AUTHORITY 2011 PROPOSED FEE SCHEDULE ALTERNATE SAFETY APPROACHES - SAFETY MANAGEMENT PLAN			
DESCRIPTION	2011 FEE	UNITS	HST
Applications			
ASA SMP Program Application Fee	\$ 2,000	per application	Yes
ASA SMP Renewal Fee	\$ 2,000	per application	Yes
ASA SMP Extension Fee - prorated based on Annual Fee x time period of extension		per SMP	Yes
Assessment Services			
ASA SMP Evaluation Fee (Time plus expenses)	\$ 215	Hourly Rate	Yes
Annual Oversight Pricing			
Based on hazard assessment level and measure of system energy			
Boiler & Associated Ancillary Equipment	Table A	per site	Yes
Pressure Vessel	Table B	per site	Yes
Electrical	Table C	per site	Yes
Propane (based on site and hazard assessment level)	Table D	per site	Yes
Notes to Fee Schedule			
Hourly Rates			
Administrative Rate			
Normal working hours, inclusive except holidays, per hour	\$ 54		
Overtime working hours Saturdays & Sundays inclusive except holidays and Monday to Friday inclusive, 4:30 p.m. to 8:00 a.m., per hour	\$ 81	Hourly Rate	Yes
Holiday working hours, per hour	\$ 108	Hourly Rate	Yes
Professional Rate			
Normal working hours, inclusive except holidays, per hour	\$ 215		
Overtime working hours Saturdays & Sundays inclusive except holidays and Monday to Friday inclusive, 4:30 p.m. to 8:00 a.m., per hour	\$ 323	Hourly Rate	Yes
Holiday working hours, per hour	\$ 430	Hourly Rate	Yes
Plus expenses incurred, where applicable. Fees are non-refundable.			

**BC SAFETY AUTHORITY
2011 PROPOSED FEE SCHEDULE
ASA- SMP ANNUAL OVERSIGHT PRICING**

Table A: Boilers & Associated Ancillary Equipment

Pricing is per site based on system energy output capacity	Assessed Hazard Category		
	1	2	3
Small	3,500	12,500	27,500
Medium	7,500	25,000	47,500
Large	12,500	45,000	72,500

Table B: Pressure Vessels

Pricing is per site based on system energy capacity	Assessed Hazard Category		
	1	2	3
Small	3,500	10,000	25,000
Medium	6,500	20,000	40,000
Large	10,500	32,500	65,000

Table C: Electrical

Pricing is per site based on system energy capacity	Assessed Hazard Category		
	1	2	3
Small	2,500	5,000	10,000
Medium	3,000	7,500	12,500
Large	3,500	10,000	15,000

Table D: Propane

Pricing per site	Assessed Hazard Category		
	1	2	3
Propane storage and handling sites	1,500	5,000	15,000

6.0 Concluding Remarks

While the initial Safety Management Plans will be processed for 'greenfield' bioenergy sector proponents, the notification and invitation for feedback on the proposed Safety Management Plan Fee Schedule, is being extended to all potentially interested proponents.

Shortly, an expanded outline of the proposed program infrastructure will be distributed and posted on the BC Safety Authority website at www.safetyauthority.ca. The objective of the outline is to provide potential proponents with a more detailed explanation of what services are incorporated within each of the three components of the pricing model.

We welcome your feedback on this exciting initiative and hope that you can attend one of the regional consultation sessions.

If you have any questions or seek clarification on the proposed Safety Management Plan Fee Schedule Discussion Paper, please do not hesitate to contact Jim Allaway at Jim.Allaway@safetyauthority.ca or 778-396-2129.

Thank you for your continued interest in this subject matter and safety in general.



SAFETY MANAGEMENT PLANS: SERVICE DELIVERY INFORMATION

Introduction

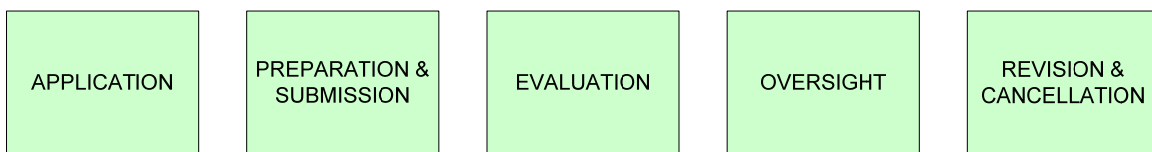
This document provides an overview of the processes and service delivery to owner/operators who wish to use a Safety Management Plan as an alternative to prescriptive regulation. The Safety Management Plan can cover design, installation, use, maintenance and repair of regulated work or regulated equipment and it can cover one or many locations/facilities. We expect that before an owner/operator submits a Safety Management Plan application there will be a discussion with the BC Safety Authority. This discussion will ensure the owner/operator knows their proposal is suitable for a Safety Management Plan.

Safety Management Plans are based on the principle that legislation sets the broad safety goals that must be attained, and that the owner/operator of a facility develops the most appropriate methods of achieving those goals. The basic tenet being: those that have created the hazard, own, and are responsible for managing the hazard.

A Safety Management Plan is a document that details owner/operator's safety management system. The owner/operator, in a Safety Management Plan, proposes to substitute or modify requirements under the Act. New or unique situations or technology that are not covered by existing regulations, codes, standards or other requirements can also be covered by Safety Management Plans.

Under this objective-based safety approach, the onus is on the owner/operator of a facility to make a "case" to the regulator that their proposed approach, supported by analysis, safety studies, and standards and organizational and operations management, will ensure continued safety of people, property and the environment. The regulator's role is to oversee the owner/operator's compliance to their proposed approach, as detailed in the Safety Management Plan which is prepared, consistent with the regulations governing Alternative Safety Approaches.

The following is a high level overview of the interaction between an owner/operator and the BC Safety Authority:



The next sections describe each of these steps in more detail.

Safety Management Plan Application Process

After an initial discussion, the owner/operator will complete an application. The application needs to include:

- Administrative information such as owner's contact information, plant operator details (if operator is different from the owner) and the physical location of the site(s) or facilities and their surroundings.
- Short overview of the regulations the Safety Management Plan is intended to address.
- An overall timeline for completing the development and submission of the Safety Management Plan.
- Assigning of the hazard category (as per BC Safety Authority hazard category guidance material) to the facility or operation and include a short description of the method used to establish the hazard category.

The **hazard category** is a measure of the inherent hazard that the regulated product presents. To determine the hazard category, the owner/operator needs to determine the amount of energy within the regulated products. In evaluating the hazard category, consideration must be given to the impact on persons, property, and the environment. This impact may result from the initial release of energy or from secondary events. Three steps are defined:

1. The identification of the area impacted by the initial event, this is called the primary zone.
2. Next, any secondary consequences within the primary zone must be considered, such as the induced failure of a storage tank containing hazardous material.
3. Once all such consequences are considered, a final impacted zone can be determined.

Any effects on persons, property, or the environment within that impacted zone, in conjunction with the site energy, will determine the hazard category. It is obviously beneficial to minimize any secondary consequences by appropriate placement of regulated products.

The Safety Management Plan Application fee will be paid up front when the application is submitted and the amount will be as outlined in the fee schedule. It is a non-refundable fee.

The BC Safety Authority will have one point of contact for all Safety Management Plan applications and once the application has been reviewed for completeness it will be registered and assessed. The assessment will primarily focus on confirming that the hazard category selected by the owner/operator is appropriate and that a Safety Management Plan is the correct instrument to meet their needs. In addition, the BC Safety Authority will determine if any 3rd party review requirements will be necessary. The timeline proposed by the owner/operator will be reviewed and revised, if necessary, to meet both parties' needs.

In addition for accepted applications the BC Safety Authority will include an estimate of the costs to evaluate the Safety Management Plan the owner/operator will be submitting – this

estimated cost will be based on an hourly rate and other costs, such as BC Safety Authority personnel site visits and/or costs for the BC Safety Authority to engage a third party to assist with the plan evaluation, if considered necessary. Applications will be either; accepted, rejected or returned to the owner/operator for further clarification – in all cases this will be in writing.

Safety Management Plan Preparation & Submission Process

Safety Management Plans will be required to include the following six major elements:

1. Various general and administrative information
2. Description of the facility, operations and surrounding environment
3. Hazard and risk identification techniques used as well as a description of all reasonably foreseeable hazards and risks
4. Risk and asset integrity management programs to control various hazards and risks
5. Emergency measures and site/facility plans developed to manage incidents or accidents should they occur
6. Provisions taken for continual improvement of the safety of the facility or site

In addition owner/operators should consider the following items as they prepare their plans:

- **Complexity and hazard are proportional to rigor and effort:**
The more hazardous and complex a facility, the greater degree of effort required in the development of the Safety Management Plan. Owner/operators will need to demonstrate that they have applied risk mitigation techniques commensurate to the hazards and complexity of the facility and operations.
- **Workforce involvement:**
Employees who may be at risk from the operation of a site/facility need to be involved in the development of the Safety Management Plan, particularly in ongoing activities to assess hazards, control risk and continuously improve safety.
- **Workforce education and training:**
Plans need to address education and training of employees.
- **Owner/Operators:**
Proponents *must* be the actual owners or operators of the site/facility for the Safety Management Plan and need to thoroughly understand their proposed plan. If a consultant assists with the application and/or the plan the BC Safety Authority will *not* directly engage with the consultant without participation of a senior site/facility staff.

Safety Management Plan Evaluation Process

When the owner/operator submits the Safety Management Plan they will also be required to pay an evaluation fee based upon the estimated number of projected hours for the evaluation.

The evaluation by the BC Safety Authority may include:

- a review of all the hazards and the risk controls and supporting documentation, such as risk studies;
- a review of the overall management systems, evidence of involvement of site/facility staff in the development of the plan and the competency and training of staff and a review of 3rd part documentation, if applicable;
- require a site visit; and
- a face-to-face meeting with the owner/operator, who will provide assurance they are knowledgeable on the contents of the plan and will demonstrate their commitment to the safety managed systems approach detailed in the plan.

On completion of the assessment process, a Safety Manager will either accept or reject the Safety Management Plan. If accepted, a Safety Management Plan audit schedule will be established; the audit frequency will be linked to the hazard tier rating of the site/facility but could also be affected by identified issues in the plan. In addition, if there is a requirement to include terms and conditions in the Safety Management Plan, they will be identified as part of the acceptance process. The owner/operator will be notified in writing of the Safety Manager decision.

If adjustments to the evaluation fee are required they will be done as part of the acceptance package and communicated to the client.

The annual oversight fee for the Safety Management Plan will be determined, when the assessment is completed and it will be communicated to the client. Records of existing registered equipment covered by the Safety Management Plan will be updated. Annual fee payments will commence on the date the Safety Management Plan is accepted by the BC Safety Authority.

If a Safety Management Plan is rejected the owner/operator will be advised of the reasons for the decision and the file will be closed. If they wish to continue along a Safety Management Plan path a new application would be required.

Safety Management Plan Oversight

During the term of a Safety Management Plan the BC Safety Authority will provide a number of oversight services: audits, investigations, monitoring, equipment registry, and efficient administration of the interface with the BC Safety Authority. Audit frequency of the site/location will be based on the hazard category and past performance of the site operator. The audit process will be carried out consistent with recognized methods by trained personnel.

A Safety Management Plan will have a maximum term of 5 years and will need to be renewed. Renewal processes have also been developed by the BC Safety Authority and will include a requirement to submit a new version of the Safety Management Plan at that time.

Safety Management Plan Revisions & Cancellations

The BC Safety Authority has also developed processes to accommodate cancellations, revisions or updates to Safety Management Plans. In the case of a cancellation, the site/location will have to revert to prescriptive regulations, if it continues to operate. Cancellation could be initiated by the owner/operator or by the BC Safety Authority. If a cancellation is initiated by the BC Safety Authority, it would be a last resort when all other avenues to conformance have been exhausted and would be done under terms and conditions set out in the Act and Regulations. In most instances, where a cancellation would occur, a transition plan would likely need to be developed by the client and agreed to and evaluated by the BC Safety Authority. Clients would be billed for the BC Safety Authority costs related to transition planning assessment and oversight.