Nailah Shami NC 11660 R 29390

From: Brian Renninger
Sent: Friday, August 24, 2018 9:41 AM
To: Notice Of Construction
Subject: FW: NOC for Fluid Motion LLC
Attachments: bact worksheet for Arlington facility.docx; exiting Monroe 2 air permit.doc; Fluid Motion overview of process..doc; Monroe 2 29390 Fluid Motion LLC 2017.xlsx; Monroe 2 emission per boat molels and size - Copy.xlsx; Monroe 2 exhaust fan check list.xlsx; Monroe 2 Insignificant Emission Units.docx; Monroe 2 letter to Brain Renninger increase HAP to 9.9 tons.docx; Monroe 2 NOC worksheets 08-27-2010.doc; NOC and appilcation for Fluid Motion LLC Monroe - Copy.pdf

See attachments and below. I didn't realize this was an application until today. However, they will need to pay the filing fee.

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

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1904 Third Avenue, Suite 105
Seattle, WA 98101

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www.pscleanair.org

From: Dennis Pearson [mailto:dennispearson@rangertugs.com]
Sent: Monday, August 13, 2018 9:27 AM
To: Brian Renninger
Subject: NOC for Fluid Motion LLC

August 13, 2018

To; Brain Renninger
PSCAA
1904 3rd Ave. Ste. 105
Seattle WA 98101-3317

From; Dennis Pearson (consultant for Fluid Motion LLC)
Nautical Watch
P.O. Box 191
North Lakewood, WA 98259

Subj; Increase HAP emission at our Monroe 2 Facility

Hi Brain,

We would like to increase our HAP limits from 5 tons to 9.9 tons at our Fluid Motion LLC facility at 17341 Tye St SE Monroe WA 98272, because of increase of sales and different models mixes. The total VOC can stay the same at 25 tons

- Our air registration number for this address is 29390
- Please see attach NOC for spray operation
- Please attach emission per boat models and size
- Please see attach SDS for Production resin, Gelcoat, Putty, and MEKP
- Please see attach process overview
- Please see attach Flow diagram
- Please see attach insignificant emission units
- Please see attach BACT worksheet for our Arlington facility done in 04-01-2016, sense there as been no new type of add-on technology I believe the report is still correct with a 3% inflation. Because we use the same equipment and processes at both location
- SEPA review was done on the existing equipment June 30, 1999 by the City of Monroe order of approval 7770
- Spray Adhesive for fabric adhesive be limit to 5 percent or less HAP.

A check of $1150.00 will be sent to PSCAA with a copy of the NOC.

Please give me a call at 425-212-8136 or e-mail me at dennispearson@rangertugs.com

Thanks
Dennis Pearson
Consultant for Fluid Motion LLC
Nautical Watch
P.O. Box 191
North Lakewood, WA 98259
425-212-8136

Notice of Construction (NOC) Worksheet

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NOC Number: **10761**	Reg. No. **29632**	Source Name: **Fluid Motion LLC**
Received Fee: **4/1/14**	Due Date: **5/1/14**	Source Location **17935 59th Ave NE, Arlington, WA 98223**
Engineer **B. Renninger**	Inspector **E. Gilpin**	Compliance Issues: **N**

A. DESCRIPTION

For the Order of Approval:
Project: Installation of a fiberglass boat manufacturing facility. Eight dry panel filter systems in three rooms for a fiberglass boat building operation.

Additional Information (if needed):

Fiberglass boat manufacturing facility is assigned NAICS Code 336612 and SIC Code 3732. Fiberglass boats are built from glass fiber reinforcements laid in a mold and saturated with a polyester or vinyl ester plastic resin. The resin hardens to form a rigid plastic part reinforced with the fiberglass. The resin is mixed with a catalyst as it is applied that causes a cross-linking reaction between the resin molecules. The crosslinking reaction causes the resin to harden from a liquid to a solid.

The polyester and vinyl ester resins that are used in fiberglass boat manufacturing contain styrene as a solvent and a cross-linking agent. Gel coats might also contain methyl methacrylate (MMA) as a solvent, and styrene. Styrene and MMA are HAP, and a fraction evaporates during resin and gel coat application and curing. Resins and gel coats containing styrene and MMA are also used to make the molds used in producing fiberglass parts. Please see *figure1* for satellite image of the facility.

The facility also conducts a number of exempt activities. These include woodworking which also has a small 400 cfm baghouse for collecting sawdust and an upholstery for creating the seats, bunks, cushions, and pads for the interior of the vessels. The upholstery activity also includes one non-exempt activity: the spray application of adhesives.

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Figure 1 -- Fluid Motion Facility (image Google Earth)

B. DATABASE INFORMATION

BE Code	41	Code Description	Molding of fiberglass

Year installed	Units installed	Rated capacity	Units of measure
2014	3	189	Tons/year
Comments (Make, model, etc.)		Capacity is total for all booths, includes molding and grinding.	

CE Code	58	Code Description	Mat or panel filter

Year installed	Units installed	Rated capacity	Units of measure
2014	8	106,400	cfm
Comments (Make, model, etc.)		Capacity is combined cfm for the eight banks of filters.	

BE Code 37	Code Description	Woodworking equipment
Year installed	Units installed	Rated capacity	Units of measure
2014	1	NA	NA
Comments (Make, model, etc.)	Custom made filter system	

BE Code 39	Code Description	miscellaneous
Year installed	Units installed	Rated capacity	Units of measure
2014	1	86	Gal/yr
Comments (Make, model, etc.)	Spray adhesive	

NSPS	**No**	**Applicable NSPS: NA**	**Delegated? NA**
NESHAP	**No**	**Applicable NESHAP: NA**	**Delegated? NA**
Synthetic Minor	**Yes**		

C. NOC FEES AND ANNUAL REGISTRATION FEES

NOC Fees:

Fee Description	Cost	Amount Received (Date)
Filing Fee	$ 1,150	
Equipment (three spray rooms)	$1,800	
Voluntary Limits on Emissions	$2,000	
SEPA (DNS)	$800	
Filing received		$ 1,150 (4/1/2014)
Additional fee received		$ 4,600 (3/17/2016)
Total Remaining Fee	$0	

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Registration Fees:

Applicability		
Regulation I	Description	Note
5.03(a)(4)(L)	Facilities with fiberglass or resin operations	
5.03(a)(6)(F)	Mat or panel filter ≥ 2,000 cfm	
Annual Registration Fee		
Regulation I	Description	Fee
5.07(c)	$1,150	Base Fee
5.07(c)(2)	$2,300	Federally enforceable emission limit
Total =	**$3,450**	

D. STATE ENVIRONMENTAL POLICY ACT (SEPA) REVIEW

Date	Description
10/28/15	Emailed City of Arlington to seek comment and verify SEPA lead status.
10/28/15	Received response from City of Arlington. According to City of Arlington, they have a business license on file for the Fluid Motion and concurred that the Agency would be SEPA lead. The City of Arlington identified no other SEPA related issues.

Based upon a review of WAC 197-11-502 of the SEPA regulation, and a review of the completed checklist and accompanying data in the NOC Application, I recommend the issuance of a Determination of Non-Significance (DNS) with no public comment.

E. TECHNOLOGICAL REVIEW

The emissions of Particulate Matter (PM), Volatile Organic Compounds (VOCs), Hazardous Air Pollutants (HAPs), Toxic Air Pollutants (TAPs), and odorous compounds are subject to Best Available Control Technology (BACT) review. VOC reduction will be the primary focus of this BACT review, as VOC relates both to HAPs, TAPs, and odorous compounds.

Similar Permits: NOC 10453, 10220

Particulate Matter BACT

Particulate matter is primarily emitted during gel-coat operations as resin application will be done with non-atomized methods as discussed below. Due, to the limited amount of atomized spraying, particulate matter emissions are relatively small and should be captured with a panel filter system.

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VOC, HAP, and TAP BACT

Styrene and Methyl Methacrylate are VOCs, HAPs, and TAPs and account for the largest proportion of VOC emissions from the activity. This BACT review will focus on options to reduce the VOCs emissions from the boat manufacturing operation.

EPA in their document Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials (EPA-453/R-08-004, September 2008) evaluates five approaches to reducing VOC emissions: low VOC resins and gel coats; vapor suppressed resins and gel coats; non-atomizing resin application; closed molding; and add-on controls systems (primarily thermal or catalytic incinerators and carbon adsorption). The current application proposes two of these methods: non-atomized resin application and low VOC resins and gel coats. The estimated short term emission calculations take these two methods into account.

Vapor Suppressed Resins and Gel Coats

Vapor suppressed gel coats work by adding an additive (typically a wax) to the material being applied. The wax rises to the surface of the applied coat and inhibits evaporation of the styrene and MMA. There are measurements that show vapor-suppressed resins reduced emission by 40 percent as compared to atomized spray application of resins. No data was identified for the emission reduction from gel-coat but, the reduction amount is thought to be similar to that of resins. Note that the 40 percent reduction form atomized spay methods may be an overestimate when compared to the current proposal which is to use non-atomized methods. The EPA guideline also discusses problems of using vapor suppressed materials for boat manufacturing.

"...adding a vapor-suppressing wax to a resin or gel coat may present significant technical problems in boat manufacturing. Because boats are relatively large and complex structures, they are usually built and assembled from subassemblies that must be bonded together. In order to achieve good secondary bonds between parts made with vapor suppressed resins, the wax film on the bonding surfaces must be removed, usually by sanding or grinding, before the parts can be bonded. This additional surface preparation can be labor intensive; one California manufacturer estimates that switching to vapor-suppressed resins caused a 25-percent labor increase in building parts. More importantly, the ultimate strength of those secondary bonds may also be reduced, increasing the possibility of structural failure among assembled parts.

Vapor suppressed gel coat can be used only in limited applications because the wax will also prevent bonding with the gel coat. Since gel coats are applied in a thin layer, the wax cannot be removed to allow bonding with additional layers of material. Therefore, vapor suppressed gel coat can only be used where additional layers will not be added. Vapor suppressed gel coat can be used to coat interior spaces of assembled boats where the gel coat is only being used as the final surface finish. Vapor suppressed gel coat is typically used in this application because the curing of all polyester resins is inhibited by exposure to the air, and the wax additive ensures complete curing of the gel coat surface."

Because vapor suppressed resins are not technically feasible (due to bonding and structural integrity concerns) for use on the major portions of the vessel (exterior and all the structural components) they are limited to only the small fraction of gel coated exposed interior surfaces and the overall emission reduction available from use of vapor suppressed gel-coats is expected to be small. While an exact emission reduction is uncertain (as exposed surface area of the boats vary and the expected reduction depends on the formulation of the particular gel coat/resin),

rough approximations show emission reductions at less than 5 percent.

Closed Molding

Closed molding is carried out with a variety of techniques. In basic conception the molding of resin is carried out by enclosing the entire part in a multi-part mold (most often two-part). The emission reductions are achieved by the resin surfaces not being open to the air and thus evaporation is inhibited. Closed molding has been most often used in making large numbers of small parts such as hatch covers or locker doors. In some cases closed molding has been used to make parts for a small numbers of small boat hulls. As currently practiced, closed molding cannot be used to reduce emissions from gel coating operations which limits the overall emission reduction potential of the process. Because gel coating is a necessary step in the boats being produced, closed molding is not considered technically feasible for this process. In addition, in this particular case, MMA is present only in the gel coat and thus emissions of MMA would not be reduced at all by closed molding. This is particularly a problem for using closed molding in the effort to reduce odor (discussed more below) as MMA has a significantly lower odor threshold than styrene and is the primary driver of the > 99.9 percent reduction needed to significantly reduce odors. Because of this lack of ability to be used with gel coats, closed molding can't be considered an effective odor reduction technique.

Add-on Controls

Add-one controls include devices such as thermal and catalytic oxidizers (incinerators) as well as carbon adsorption. Incineration devices control emissions by collecting the odorous compound with a ventilation system and then destroying the compound with heat or by exposing them to a catalyst. The primary issue with add-on controls is cost. With large air flows (in this case a bit greater than 100,000 cfm) containing low concentrations of pollutants, add-on controls will be capital intensive in both capital costs and annual operating costs. One approach to reducing these costs is to condense the vapors prior to sizing a control device. The result of concentration reduces the cost of the needed control device but, also adds additional costs. Additionally for odor (which will be discussed more below), the high destruction efficiencies needed to achieve a low odor outcome will require substantial additional capacity (and thus cost of the units). The discussion below looks at the scenario of operating a traditionally sized unit without analyzing the higher efficiencies needed to achieve odor goals.

Thermal oxidizers combust fuel (typically natural gas) to provide heat to destroy odorous compounds (VOCs). Waste heat from the process can be utilized to pre-heat the gases and reduce operating (fuel) costs. Design of thermal oxidizers is a trade-off balancing the additional capital cost of heat recovery with lowered operating costs. Heat recovery is best utilized in continuous processes as much of the efficiency gains are lost if the recovery refractory need to be reheated multiple times. Because of this, a thermal oxidizer with heat recovery isn't considered technically feasible for this application. Using operating cost curves for non-regenerative thermal oxidizers from the *Air Quality Control Handbook* (E. Roberts Alley & Associates 1998), the annual operating cost of a thermal oxidizer for this application is estimated to be over twelve million dollars per year. Or, in terms of annual dollars per ton pollutant removed about

$194,000/ton VOC removed. Note: this estimate only looks at annual operating cost and does not include other costs such as the capital cost to purchase the unit or the additional costs for increase destruction efficiency.

Catalytic oxidizers use a catalyst to accelerate the combustion of pollutants at a lower temperature than thermal oxidizers thereby reducing the operating cost (fuel use) of the unit at the expense of a higher capital cost. Catalytic oxidizers, similar to thermal oxidizers can be designed with heat recovery as well with the same limitations for intermittent processes. Like with the thermal oxidizer example a heat-recovery for this application is not considered technically feasible due to the intermittent nature of the process. Using operating cost curves for non-regenerative catalytic oxidizers from the *Air Quality Control Handbook* (E. Roberts Alley & Associates 1998), the annual operating cost of a catalytic oxidizer for this application is estimated to be over four and a half million dollars per year. Or, in terms of annual dollars per ton pollutant removed about $73,000/ton VOC removed. Note: this estimate only looks at annual operating cost and does not include other costs such as the capital cost to purchase the unit or the additional costs for increase destruction efficiency. While, this operating cost is much reduced in comparison to a thermal oxidizer, the cost is still such as not to be considered economically feasible for this application.

Other potential technologies to reduce VOCs include carbon adsorption and condensers. EPA analyzed the cost-effectiveness of VOC control in boat-making in their 1996 document *Assessment of Styrene Emission Controls for FRP/C and Boat Building Industries* (EPA-600/R-96-109). This document analyzed a number of technologies using carbon adsorption and condensers in conjunction with carbon adsorption (as well as thermal and catalytic oxidation). The Figure 5.4 extracted from the document below shows costs per ton for these various technologies for a variety of starting concentrations of VOC and flow rates. While the starting concentrations for this project are substantially lower (and flow rates higher) than the range shown in the Figure, extrapolating the curves (as they go asymptotic), produces Costs/per ton well over $10,000/ton (and most likely greater than $20,000 per ton). And, it should be noted the costs presented in the figure are 1996 dollars and should be approximately 1.52 times greater to produce cost estimates in 2016 dollars. These numbers then are roughly comparable in magnitude to those estimated for thermal and catalytic oxidizers from the figures in the *Air Quality Control Handbook.*

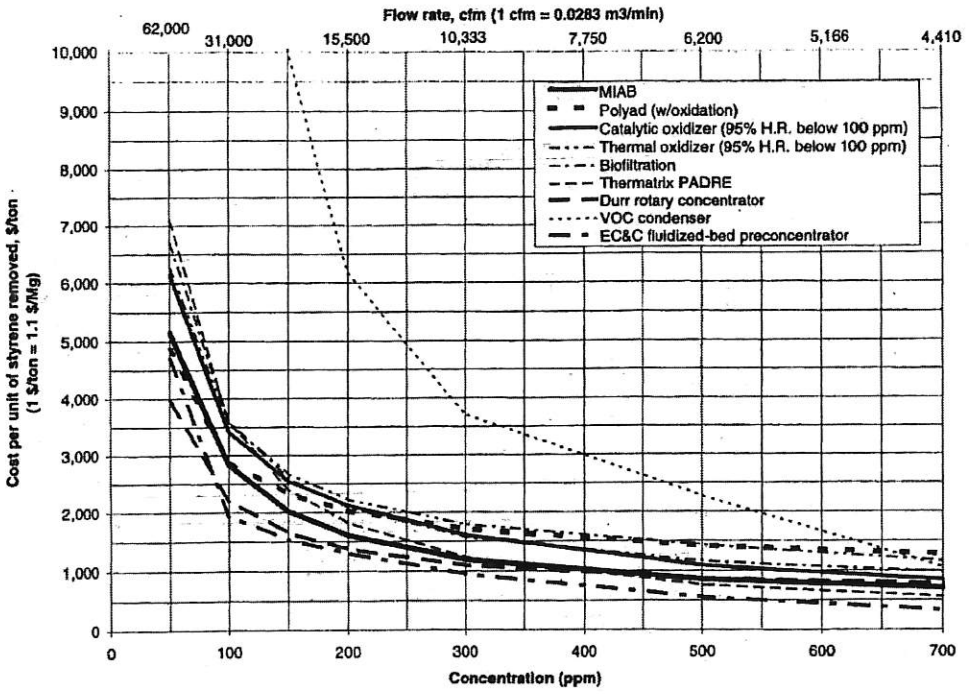

Figure 5-4. Cost curves for a medium-size plant (100 tons per year inlet).

Because of the high cost per ton of pollutant removed, add on technologies for VOC controls are not considered economically feasible for this project. Instead, the focus is on reducing VOC emissions from resins and gel coats used in open molding at fiberglass boat manufacturing facilities by reducing the VOC content of the materials (resin and gel coat) and by switching to nonatomizing application methods as proposed in the application.

Tooling & Production Resins

Base on EPA-453/R-08-004- Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials, it appears that nonatomizing application method for the production and tooling resins is fairly common. Therefore, it is believed that nonatomizing method (s) shall be utilized to reduce HAP/VOC emissions. The nonatomizing methods might include the following, but not limited to: bucket and brush application by hand; resin flow coater; resin roller; resin impregnator, fluid impingement technology which creates large droplets.

Although 40 CFR 63 Subpart VVVV National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing only applies to major sources of HAP, which this source is not, the VOC/Organic HAP content limitation will be consistent with 40 CFR 63, Subpart VVVV. The HAP limits are as shown in the table below.

Operation	Application Method	Weighted Average Organic HAP Limit (weight percent)
Production resin operations	Nonatomized	35
Tooling resin operations	Nonatomized	39

Gel Coat Operations

Gel coats can be applied with atomizing spray guns; however the spray gun shall have good transfer efficiency, consistent with requirement of section 3.08 of Regulation II. The VOC/HAP content will be limited consistent with 40 CFR 63, Subpart VVVV - National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing. The HAP limits are as shown in the table below.

The compliance determination method is based on the material compliant option described in 40 CFR 63, Subpart VVVV as it is simpler and easier to implement.

Operation	Application Method	Weighted Average Organic HAP Limit (weight percent)
Pigmented gel coat operations	Any method	33
Clear gel coat operations	Any method	48
Tooling gel coat operations	Any method	40

Cleaning Material

It appears that the facility is using Acetone for equipment cleaning. Acetone is not a VOC (delisted from VOC list by EPA). Therefore, the BACT determination is to use cleaning solvent that contain no VOC and HAP.

Spray Adhesive

Subpart VVVV requires that fabric adhesive be limited to 5 percent or less HAP. Previous Agency Orders have imposed this limit as BACT for spray adhesive activity. While the emission inventory and application used a higher HAP content adhesive the previous Agency BACT determination is appropriate for this activity.

Odor

The Washington State Clean Air Act RCW 70.94.030(1) defines "odorous substances" as air contaminants and as such, per WAC 173-400-113(2), BACT for odor needs to be determined.

The two main odorous compounds emitted are styrene and methyl methacrylate (MMA) which are components of the polyester resins and gelcoats. Both compounds have relatively low odor thresholds: 0.32 ppmv for styrene and 0.083 ppmv for MMA. These odor threshold values are concentrations at which half of a population of observers would not be able to detect the odor. Screening dispersion modeling shows a couple observations. First, given the annual emissions of

styrene and MMA, the estimated maximum ambient concentrations of these compounds are substantially less than the odor thresholds. So, there should not be a chronic odor issue from the activity. However, odor is more often a transitory short-term phenomenon. Analysis of short-term (3-minute averaging periods at emission rates representing a conservatively high material use rate) concentrations shows estimated concentrations greater than the odor thresholds. In particular, at distances from 35 meters[1] out to hundreds of meters, it is possible to create ambient concentrations where most people would experience a strong odor. In order to create a situation where estimated short-term concentrations are less than the odor thresholds emission would need to be reduced by 60 percent. This reduction level would still result in a situation where half the population would still perceive the odor; substantial additional reductions beyond 60 percent would be needed to reduce odor to a point where it is unlikely for anyone to detect the odor. Odor is perceived as logarithmic function, meaning roughly that it takes an order of magnitude (10x) reduction to achieve a reduction of half the perceived odor. This means to create a situation where less than one in ten people can perceive the odor, emissions would need to be reduced by greater than 99.9 percent.

These odor estimates are for periods based on four or more resin or gel coat guns are operating simultaneously. For periods when a single gun is operating at a time, odors should be reduced to less than the odor thresholds at any distance. As mentioned above, this may mean still some observable odor as odor thresholds are concentrations where half the population can still perceive it. But, nonetheless single gun operation is the most likely given operating scenario given the ebb and flow of work at each station. This means that periods of stronger short term odor caused by multi-gun operation will be infrequent. At the same time, the cost estimates for VOCs controls presented above depend on the capability of the particular control but, many of the listed add-on control options are of less than 60 percent efficient and all were less than the 99.9 percent reduction necessary to ensure very few people could detect the odor for these infrequent short-term events. Increased control efficiencies introduce additional technological feasibility questions for some of the discussed options and for the others options capable of meeting the needed reduction efficiency will increase the costs. Because the costs of add-on controls are already economically infeasible for the more modest VOC reductions, the increased cost of add-on odor controls is not considered cost-effective for what is expected to be infrequent events.

Instead, BACT for odor will match the BACT for VOC, HAP, and TAP which is reduced styrene and MMA product formulations and the use of non-atomized techniques for styrene resins. To ensure the level of dispersion the screening model assumes, additional odor BACT requirements are being added to the proposed conditions in terms of operational practices – building doors, windows, and other openings will be required to be closed (except for incidental passage of personal) at all times will applying resin or gel coat.

[1] Concentrations closer than 35 meters from the stack are estimated to be lower than the odor thresholds due to there being no predicted downwash into those areas based on building and stack geometries.

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F. EMISSION ESTIMATES

Emission estimates were based on a standardized boat material content and the expected potential numbers of boats produced per year at the facility. The application estimates actual production of 84 thirty-foot boats per year. Potential emissions are based on production of 97 thirty-foot boats per year and an emission limitation of 9.9 tons per year of styrene. The attached spreadsheet shows the details of the emission estimates for potential and actual emissions.

NOC 10761
Emissions Estimates

Proposed Project Emissions

Actual Emissions

	Styrene (ton/yr)	Methyl methacrylate (ton/yr)	Dimethyl phthalate (ton/yr)	Methyl ethyl ketone (ton/yr)	n-Hexane (ton/yr)	Xylene (ton/yr)	Toluene (ton/yr)	Cyclohexane (ton/yr)	Ethyl benzene (ton/yr)	Benzene (ton/yr)	Cobalt (ton/yr)	VOC (ton/yr)	PM (ton/yr)
Gelcoat	3.13	0.87	-	0.44	-	0.0784	0.0116	0.0116	0.0041	0.0029	-	8.93	0.02
Polyester resin	4.48	-	-	-	-	-	-	-	-	-	0.0002	42.85	0.08
Vinyl ester resin	0.50	-	-	-	-	-	-	-	-	-	-	5.04	0.01
5Gal Hi-Thix Radius Putty	0.45	-	-	-	-	-	-	-	-	-	-	-	NA
Initiator (MEKP-925)	-	-	2.15	0.07	-	-	-	-	-	-	-	-	NA
Mold Release	-	-	-	-	0.0074	0.0074	0.0042	0.0042	0.0015	0.0011	-	-	NA
Wood Stain	-	-	-	-	-	-	-	-	-	-	0.0000002	0.10	0.00
Contact Adhesive	-	-	-	-	0.0002	-	0.0001	-	-	-	-	-	NA
Spray Adhesive	-	-	-	-	0.0751	0.0175	-	-	-	-	-	0.23	NA
Total:	8.56	0.87	2.15	0.51	0.08	0.10	0.02	0.02	0.01	0.0040	0.0002	57.15	0.11

Fluid Motion
NOC Worksheet No. 10761

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Potential Emissions

	Styrene (ton/yr)	Methyl methacrylate (ton/yr)	Dimethyl phthalate (ton/yr)	Methyl ethyl ketone (ton/yr)	n-Hexane (ton/yr)	Xylene (ton/yr)	Toluene (ton/yr)	Cyclohexane (ton/yr)	Ethyl benzene(ton/yr)	Benzene (ton/yr)	Cobalt (ton/yr)	VOC (ton/yr)	PM (ton/yr)
Gelcoat	3.62	1.01	-	0.50	-	0.0905	0.0134	0.0134	0.0047	0.0034	-	10.31	0.02
Polyester resin	5.18	-	-	-	-	-	-	-	-	-	0.0003	49.48	0.09
Vinyl ester resin	0.57	-	-	-	-	-	-	-	-	-	-	5.82	0.01
5Gal Hi-Thix Radius Putty	0.52	-	-	-	-	-	-	-	-	-	-	-	-
Initiator (MEKP-925)	-	-	2.48	0.08	-	-	-	-	-	-	-	-	NA
Mold Release	-	-	-	-	0.0085	0.0085	0.0049	0.0049	0.0017	0.0012	-	-	NA
Wood Stain	-	-	-	-	-	-	-	-	-	-	0.0000002	0.12	0.00
Contact Adhesive	-	-	-	-	0.0002	-	-	-	-	-	-	-	NA
Spray Adhesive	-	-	-	-	0.0867	0.0202	-	-	-	-	-		-
Total:	9.89	1.01	2.48	0.59	0.10	0.12	0.02	0.02	0.01	0.00	0.00	65.73	0.12
Total HAPs:	13.62												

Facility-wide Emissions

Reporting Source?

Yes. Estimated actual emissions are greater than the reporting thresholds in Regulation I, Section 5.05(b): 2.5 tons single HAP; 6.25 total HAP or 25 tons VOCs.

G. OPERATING PERMIT or PSD

There is the potential to emit 10 tons per year or greater of a single HAP, 25 tons per year or greater of combined HAPs, as well as 100 tons per year or greater of VOC. Under the current proposal, the limiting factor for all three pollutants is a limit of 9.9 tons-per-year of styrene emissions. However, resin formulations could change and that could potentially change the proportions of emitted compounds such that combined HAPs or VOCs would be the limiting factor. Because of this, to ensure that the facility does not exceed major source thresholds which would require applying for an Air Operating Permit (AOP) the facility is requesting "synthetic minor" limits of 9.9 tpy of any individual HAP, 24.9 tpy of combined HAPs, and 99 tpy of VOCs. These limits should be sufficient to avoid meeting the criteria for requiring both an Air Operating Permit (AOP) and a Preventions of Significant Deterioration permit (PSD).

H. AMBIENT IMPACT ANALYSIS

The table below compares the emissions of toxic air pollutants (TAPs) to the Small Quantity Emission Rates (SQERs) listed in WAC 173-460-150. Emissions greater than the SQERs require further dispersion modeling analysis to show that estimated ambient concentrations of the specific TAP will be less than the Acceptable Source Impact Levels (ASILs) listed in WAC 173-460-150. Of the potential TAP emissions, the sole pollutant whose emissions are greater than the SQERs is benzene. A dispersion modeling analysis of the potential benzene emissions was conducted as discussed below.

TAP	SQER		Potential Emission		Model?
Styrene	118	lb/24-hr	54.18	lb/24-hr	No
Methyl methacrylate	92	lb/24-hr	5.51	lb/24-hr	No
Methyl ethyl ketone	657	lb/24-hr	3.21	lb/24-hr	No
n-Hexane	92	lb/24-hr	0.52	lb/24-hr	No
Xylene	29	lb/24-hr	0.65	lb/24-hr	No
Toluene	657	lb/24-hr	0.10	lb/24-hr	No
Cyclohexane	789	lb/24-hr	0.10	lb/24-hr	No
Ethyl benzene	76.8	lb/24-hr	0.04	lb/24-hr	No
Benzene	6.62	lb/yr	9.13	lb/yr	Yes
Cobalt	0.013	lb/24-hr	0.0015	lb/24-hr	No

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Agency Regulation III, Section 2.07(c)(1)(B) requires the use of the TSCREEN dispersion model for estimating ambient TAP concentrations. The TSCREEN model is capable of modeling a single stack for the purposes of estimating ambient concentrations. The facility has eight stacks from which benzene emissions might be emitted. Section 2.2 of EPA's Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised contains procedures for determining the worst-case stack to model facility emissions. The table below shows the merged stack analysis for a unit emission rate. Per the method the merged stack parameter M was calculated showing stacks 5 and 6 (which have identical stack parameters) to be the worst-case stack to model.

Stack Number	M, Merged Stack Parameter	hs, Stack Height	V, volumetric flow	ds, Stack Diameter	vs, Stack Velocity	Ts, Stack Temperature	Q, Pollutant Emission Rate
		m	m^3/s	m	m/s	K	g/s
1	2.479E+04	14.0209705	6.03	0.762	13.2	293.15	1
2	2.479E+04	14.0209705	6.03	0.762	13.2	293.15	1
3	3.114E+04	14.3257742	7.41	0.762	16.3	293.15	1
4	3.114E+04	14.3257742	7.41	0.762	16.3	293.15	1
5	1.884E+04	14.0209705	4.58	0.762	10.0	293.15	1
6	1.884E+04	14.0209705	4.58	0.762	10.0	293.15	1
7	2.846E+04	13.71616679	7.08	0.762	15.5	293.15	1
8	2.846E+04	13.71616679	7.08	0.762	15.5	293.15	1

In addition to the stack 5 and 6 emission parameters, the model was run using building downwash and the rural dispersion coefficients. A complete list of model inputs and model results is found in the emission spreadsheet attached in Section F. TSCREEN model results for a unit emission rate were multiplied by the benzene emission rate to determine a final modeled estimated ambient concentration that was less than the association ASIL as shown below.

Modeled Unit Emissions Rate	
	$\mu g/m^3$
Annual:	35.632

	Emission Rate	Modeled Concentration	ASIL
	g/s	$\mu g/m^3$	$\mu g/m^3$
Benzene	0.00013	0.005	0.0345

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I. APPLICABLE RULES & REGULATIONS

1. PUGET SOUND CLEAN AIR AGENCY REGULATIONS

Regulation I

SECTION 5.05 (C): The owner or operator of a registered source shall develop and implement an operation and maintenance plan to ensure continuous compliance with Regulations I, II, and III. A copy of the plan shall be filed with the Control Officer upon request. The plan shall reflect good industrial practice and shall include, but not be limited to, the following:
(1) Periodic inspection of all equipment and control equipment;
(2) Monitoring and recording of equipment and control equipment performance;
(3) Prompt repair of any defective equipment or control equipment;
(4) Procedures for startup, shut down, and normal operation;
(5) The control measures to be employed to ensure compliance with Section 9.15 of this regulation; and
(6) A record of all actions required by the plan.
The plan shall be reviewed by the source owner or operator at least annually and updated to reflect any changes in good industrial practice.

SECTION 6.09: Within 30 days of completion of the installation or modification of a stationary source subject to the provisions of Article 6 of this regulation, the owner or operator or applicant shall file a Notice of Completion with the Agency. Each Notice of Completion shall be submitted on a form provided by the Agency, and shall specify the date upon which operation of the stationary source has commenced or will commence.

SECTION 9.03: (a) It shall be unlawful for any person to cause or allow the emission of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour, which is:
(1) Darker in shade than that designated as No. 1 (20% density) on the Ringelmann Chart, as published by the United States Bureau of Mines; or
(2) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Section 9.03(a)(1).
(b) The density or opacity of an air contaminant shall be measured at the point of its emission, except when the point of emission cannot be readily observed, it may be measured at an observable point of the plume nearest the point of emission.
(c) This section shall not apply when the presence of uncombined water is the only reason for the failure of the emission to meet the requirements of this section.

SECTION 9.09: General Particulate Matter (PM) Standard. It shall be unlawful for any person to cause or allow the emission of particulate matter in excess of the following concentrations:
Equipment Used in a Manufacturing Process: 0.05 gr/dscf

SECTION 9.11: It shall be unlawful for any person to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.

SECTION 9.13: It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person.

SECTION 9.15: It shall be unlawful for any person to cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions. Reasonable precautions include, but are not limited to, the following:
(1) The use of control equipment, enclosures, and wet (or chemical) suppression techniques, as practical, and curtailment during high winds;
(2) Surfacing roadways and parking areas with asphalt, concrete, or gravel;
(3) Treating temporary, low-traffic areas (e.g., construction sites) with water or chemical stabilizers, reducing vehicle speeds, constructing pavement or rip rap exit aprons, and cleaning vehicle undercarriages before they exit to prevent the track-out of mud or dirt onto paved public roadways; or
(4) Covering or wetting truck loads or allowing adequate freeboard to prevent the escape of dust-bearing materials.

SECTION 9.20: It shall be unlawful for any person to cause or allow the operation of any features, machines or devices constituting parts of or called for by plans, specifications, or other information submitted pursuant to Article 6 of Regulation I unless such features, machines or devices are maintained in good working order.

Regulation II
SECTION 3.08 POLYESTER, VINYLESTER, GELCOAT, AND RESIN OPERATIONS
(a) This section shall apply to manufacturing operations involving the use of polyester, vinylester, gelcoat, or resin in which the styrene monomer is a reactive monomer for the resin.
(b) It shall be unlawful for any person to cause or allow the application of polyester resin, vinylester resin, gelcoat, or any other resin unless the operation is conducted inside an enclosed area that is registered with the Agency. The exhaust from the operation shall be vented to the atmosphere through a vertical stack. For spray-coating applications of polyester resin, vinylester resin, gelcoat, or any other resin, the enclosed area shall incorporate a dry filter to control the overspray.
(c) It shall be unlawful for any person to use a chopper gun or spray gun to apply polyester resin, vinylester resin, gelcoat, or any other resin, unless the coating is applied by the use of one of the following methods:
(1) High volume, low pressure (0.1 to 10 psig air pressure for atomization) spray equipment,
(2) Electrostatic spray equipment,
(3) Airless spray equipment, or
(4) Air-assisted airless spray equipment.

(d) The provisions of Section 3.08(c) shall not apply to touchup and repair using a hand-held, air atomized spray gun that has a container for resin as part of the gun.
(e) It shall be unlawful for any person to use any VOC-containing material for the cleanup of spray equipment, including resin lines, unless equipment for collecting the VOC-containing material and minimizing the evaporation to the atmosphere is employed. All VOC-containing materials that are flushed through the spray equipment or lines during cleanup shall be collected in a closed container.
(f) It shall be unlawful for any person to use open containers for the storage or disposal of VOC-containing materials. Such containers and tanks shall be kept closed except when being cleaned or when materials are being added, mixed, or removed. Closed containers for solvent rag or paper disposal are required. Empty containers as defined in WAC 173-303-160 are exempt.

2. WASHINGTON STATE ADMINISTRATIVE CODE

WAC 173-400-040(2): No person shall cause or allow the emission for more than three minutes, in any one hour, of an air contaminant from any emissions unit which at the emission point, or within a reasonable distance of the emission point, exceeds twenty percent opacity except when the owner or operator of a source supplies valid data to show that the presence of uncombined water is the only reason for the opacity to exceed twenty percent.

WAC 173-400-040(3): Fallout. No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

WAC 173-400-040(5): Odors. Any person who shall cause or allow the generation of any odor from any source or activity which may unreasonably interfere with any other property owner's use and enjoyment of his property must use recognized good practice and procedures to reduce these odors to a reasonable minimum.

WAC 173-400-040(6): Emissions detrimental to persons or property. No person shall cause or allow the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.

WAC 173-400-040(8): Concealment and masking. No person shall cause or allow the installation or use of any means which conceals or masks an emission of an air contaminant which would otherwise violate any provisions of this chapter.

WAC 173-400-040(9): The owner or operator of a source or activity that generates fugitive dust must take reasonable precautions to prevent that fugitive dust from becoming airborne and must maintain and operate the source to minimize emissions.

3. FEDERAL

40 CFR 63, Subpart VVVV - National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing is not applicable since the facility is not a major source of HAP.

J. PUBLIC NOTICE

A notice of application was posted on the Agency's website for 15 days. No requests or responses were received.

This project meets the criteria for mandatory public notice under WAC 173-400-171(3)(k) for establishing a voluntary limit on emissions. This is due to requesting a voluntary limit on emissions for HAPs and VOC. A 30 public comment period was held from June 21, 2016 through July 20, 2016. Notices that the draft materials were open to comment were published in the Everett Herald and the Daily Journal of Commerce on June 21, 2016. The Agency posted the application, the draft worksheet on the Agency's website during the comment period. No comment received during the comment period.

RECOMMENDED APPROVAL CONDITIONS

Standard Conditions:

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the installation address in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.

2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

Specific Conditions:

Open Molding Resin and Gel Coat Operations

3. During resin or gel-coat operations the doors, windows, and other openings (other than exhaust stacks) shall be closed (except to allow intermittent passage of personel and/or parts) during resin application and gel coat application activities.

4. The owner or operator shall use nonatomizing application method for production and tooling resin. Gel coat shall only be applied with one of the following options: high volume, low pressure (0.1 to 10 psig air pressure for atomization) spray equipment; electrostatic spray equipment; airless spray equipment; or air-assisted airless spray equipment.

5. Open molding operations shall meet the organic hazardous air pollutant (HAP) limits as shown below, based on 12-month rolling average.

Operation	Application Method	Weighted Average Organic HAP Limit (weight percent)
Production resin operations	Nonatomized	35
Tooling resin operations	Nonatomized	39
Tooling gel coat operations	Any method	40
Pigmented gel coat operations	Any method	33
Clear gel coat operations	Any method	48

6. If the organic HAP contents of each resin and gelcoat used in the past 12-month is equal to or less than the organic HAP limit in the condition no. 5 of this order, the open molding operation is in compliance with the organic HAP content limitation and the weighted average HAP content calculation is not needed.

7. If any resin or gel coat does not meet the applicable organic HAP content limit by itself, the owner or operator shall perform the calculations in accordance with 40 CFR 63.5713 to show that the weighted-average organic HAP content does not exceed the limit specified in condition No. 5 of this order.

Carpet and Fabric Adhesive Operations

8. The owner or operator shall use carpet and fabric adhesives that contain no more than 5 percent organic HAP by weight.

Resin and Gel Coat Application Equipment Cleaning Operations

9. The owner or operator shall use cleaning solvent that does not contain any VOC and HAP for resin and gel coat application equipment cleaning and keep manufacturer's records of the cleaning solvent content.

Best Management Practice (BMP)

10. The owner or operator shall visually inspect all HAP/VOC material containers at least once per week. The inspection should ensure that all containers have covers with no visible gaps between the cover and the container, or between the cover and equipment passing through the cover. Take immediate corrective action if any container has been found not being kept closed. The owner or operator shall keep contemporaneous record the results of the inspection, including a description of any corrective actions taken. The record shall include

the following information, but not limited to:

a. Operator's name.
c. Date & time of the inspection.
d. Confirmation that the containers are being kept closed.
e. The description of the corrective actions taken, if any.

11. The dry filter system shall be equipped with a gauge (manometer or magnehelic) to measure the pressure drop across the exhaust filters. The acceptable pressure drop range shall be clearly marked on or near the gauge. The minimum pressure drop shall not be less than the pressure drop measured with a clean, properly installed filter.

12. At least once each day, prior to conducting open molding operation, the owner or operator shall inspect the dry filter system to ensure that:

    a. The pressure drop measurement device is operating and the pressure drop across the exhaust filter is within the acceptable range recommended by the manufacturer.
    b. The filter is not installed backwards, is properly seated and is tightly secured.

13. If requirements as described by condition No.12.a. or 12.b. are not met, the owner or operator shall discontinue the operations and take corrective action. The owner or operator shall only resume operation after the requirements as described by condition No.12.a. and 12.b are met.

14. The owner or operator shall keep the dry filter system inspection records in a written log contemporaneously. The records shall at least include the following, but not limited to:

    a. The date and time of the inspection.
    b. The name of the person conducted the inspection.
    c. The pressure drop.
    d. Confirmation that the filter is not installed backwards, is properly seated and is tightly secured.
    e. The corrective action conducted, if any.

HAP Content Determination

15. The owner or operator shall determine the organic HAP content for each material used in the open molding resin and gel coat operations, carpet and fabric adhesive operations by using information from the supplier or manufacturer of the material. If the organic HAP content is provided by the material supplier or manufacturer as a range, then the owner or operator shall use the upper limit of the range for determining compliance.

16. The owner or operator shall keep records of all the information used to demonstrate compliance with the organic HAP content limitations.

Synthetic Minor Limits

17. The owner or operator shall limit facility-wide emissions of hazardous air pollutants in Section 112(b) of the federal Clean Air Act (HAPs) to less than 9.9 tons of any single listed HAP, 24.9 tons of all HAPs combined, and 99 tons of volatile organic compounds (VOCs) during each 12 consecutive rolling months after the date of this Order of Approval.

18. The owner or operator shall monitor and record quantities of all purchases of raw materials on a monthly basis. Raw materials include all products used at the facility that contribute to HAP and VOC emissions. The owner or operator shall maintain, on-site, material safety data sheets or certified product data sheets for these products.

19. The owner or operator shall calculate monthly emissions of HAP and VOCs, and prepare monthly records that demonstrate that annual emissions do not exceed the limits in Condition No. 17. Records shall include the following: (a) monthly emissions of each HAP, (b) monthly total of all HAPs combined, (c) monthly total of all VOCs, and (d) a rolling total of emissions over the previous 12-month period.

20. The owner or operator shall notify the Puget Sound Clean Air Agency, in writing, within 30 days after the end of each 12-month period if, during that period, emissions of any single HAP exceeded 9 tons, emissions of all HAPs combined exceeded 22.5 tons, or emissions of VOCs exceeded 90 tons. The report shall include emissions data for the time period for which these thresholds were exceeded.

Records

21. All the records required by this Order shall be kept onsite for at least five years and shall make available to Puget Sound Clean Air Agency personnel upon request.

K. CORRESPONDENCE AND SUPPORTING DOCUMENTS

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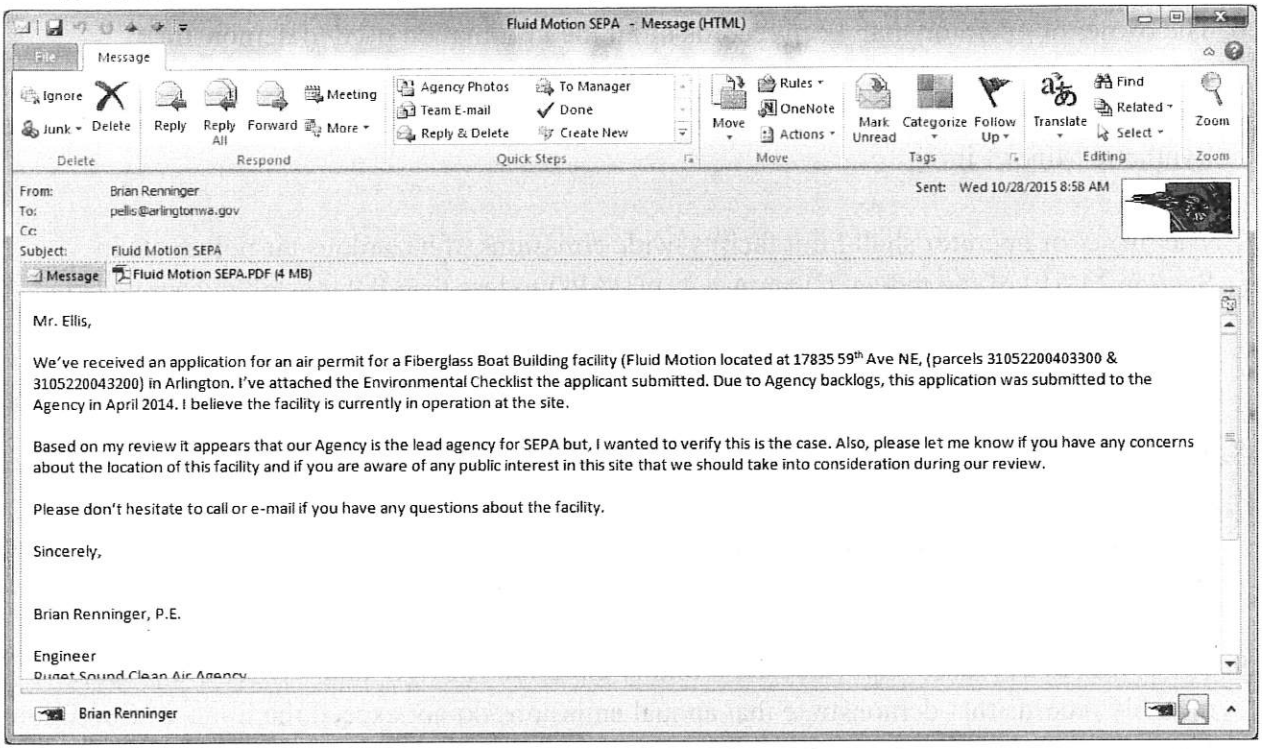
1. E-mail to Paul Ellis, October 28, 2015



Fluid Motion SEPA - Message (HTML)

File | Message

Ignore | Junk | Delete | Reply | Reply All | Forward | Meeting | More | Agency Photos | Team E-mail | Reply & Delete | To Manager | Done | Create New | Move | Rules | OneNote | Actions | Mark Unread | Categorize | Follow Up | Translate | Find | Related | Select | Zoom

Delete | Respond | Quick Steps | Move | Tags | Editing | Zoom

From: Brian Renninger
To: pellis@arlingtonwa.gov
Cc:
Subject: Fluid Motion SEPA
Sent: Wed 10/28/2015 8:58 AM

Message | Fluid Motion SEPA.PDF (4 MB)

Mr. Ellis,

We've received an application for an air permit for a Fiberglass Boat Building facility (Fluid Motion located at 17835 59th Ave NE, (parcels 31052200403300 & 3105220043200) in Arlington. I've attached the Environmental Checklist the applicant submitted. Due to Agency backlogs, this application was submitted to the Agency in April 2014. I believe the facility is currently in operation at the site.

Based on my review it appears that our Agency is the lead agency for SEPA but, I wanted to verify this is the case. Also, please let me know if you have any concerns about the location of this facility and if you are aware of any public interest in this site that we should take into consideration during our review.

Please don't hesitate to call or e-mail if you have any questions about the facility.

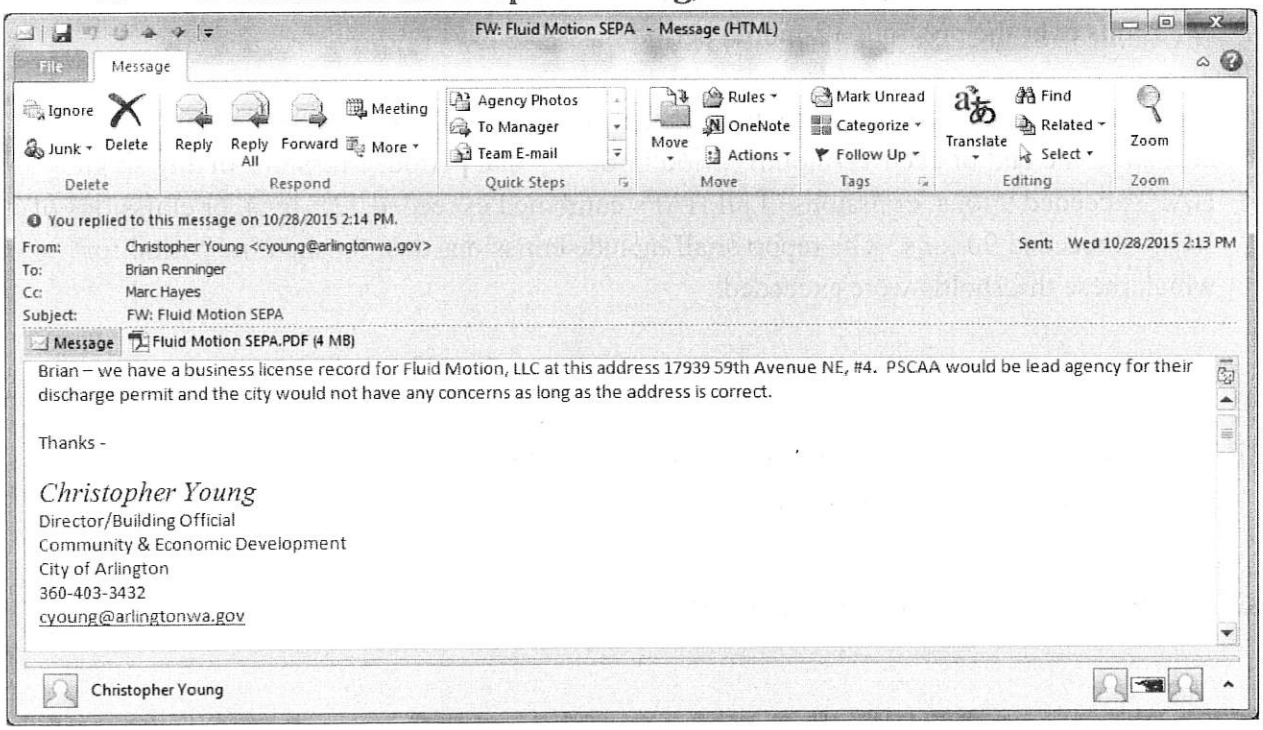
Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

Brian Renninger

2. E-mail from Christopher Young, October 28, 2015



FW: Fluid Motion SEPA - Message (HTML)

File | Message

Ignore | Junk | Delete | Reply | Reply All | Forward | Meeting | More | Agency Photos | To Manager | Team E-mail | Move | Rules | OneNote | Actions | Mark Unread | Categorize | Follow Up | Translate | Find | Related | Select | Zoom

Delete | Respond | Quick Steps | Move | Tags | Editing | Zoom

You replied to this message on 10/28/2015 2:14 PM.

From: Christopher Young <cyoung@arlingtonwa.gov>
To: Brian Renninger
Cc: Marc Hayes
Subject: FW: Fluid Motion SEPA
Sent: Wed 10/28/2015 2:13 PM

Message | Fluid Motion SEPA.PDF (4 MB)

Brian – we have a business license record for Fluid Motion, LLC at this address 17939 59th Avenue NE, #4. PSCAA would be lead agency for their discharge permit and the city would not have any concerns as long as the address is correct.

Thanks -

Christopher Young
Director/Building Official
Community & Economic Development
City of Arlington
360-403-3432
cyoung@arlingtonwa.gov

Christopher Young

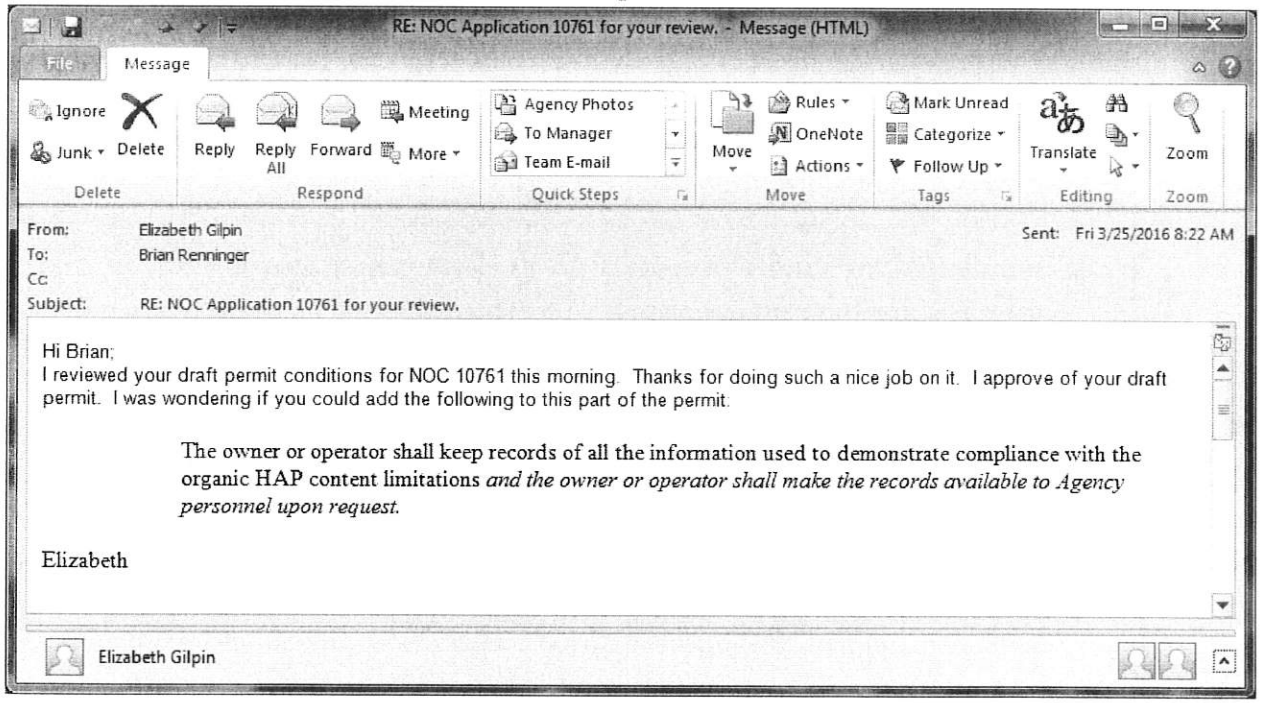
3. Telephone conversation with Dennis Pearson, March 24, 2016

I spoke with Mr. Pearson and he indicated that he'd reviewed the draft worksheets and conditions and said he had no problems with them. We discussed the public comment period and that it would likely start next week sometime.

4. Comments from Carole Cenci, March 24, 2016

Comments included: a request to specify the gel coating gun type restriction, a request for a more detailed write-up for odor BACT and odor modeling. These comments resulted in a revised BACT section, the addition of the gel coating gun restrictions, and the addition of a requirement to keep facility doors closed during resin and gel coating operations.

5. Comments from Elizabeth Gilpin, March 25, 2016



6. Comments from Dennis Pearson, June 13, 2016

Comments included: a request to add an allowance to move parts through doors; and, a request to revise facility layout to correct woodshop location.

7. Comments from Dennis Pearson, June 14, 2016

Comment to correct a typo in Section H misidentifying the worst-case stack parameters for modeling. With this correction Mr. Pearson indicated that he thought it was ready for public notice.

L. REVIEWS

Inspector Name	E. Gilpin.	Date: 3/25/2016

Fluid Motion
NOC Worksheet No. 10761

pscleanair.org
Puget Sound Clean Air Agency

Source Name	Dennis Pearson	Date: 6/14/2016

pscleanair.org
Puget Sound Clean Air Agency

Puget Sound Clean Air Agency
Notice of Construction Worksheet

NOC Number: **10220**	Reg. No. **29390**	Source Name: **Fluid Motion**
Received Fee: **8/27/10**	Due Date: **9/27/10**	Source Location **17341 Tye St SE, Monroe, WA 98272**
Engineer **B. Renninger**	Inspector **J. Schantz**	Compliance Issues: **Yes o** **No o**

A. Project Description

1. *Description for Order of Approval*

Two dry filter system spray coating booth rated at 10,000 cfm each for a fiberglass boat building operation.

2. *Detailed Description*

This project is to start a fiberglass boat building operation. Proposed estimated operation is the construction of 60 boats per year. The facility was previously constructed and used as a boat building operation with similar types of resins, gelcoats, and types of emissions. NOC 7770 was issued June 30, 1999 to Glacier Bay Catamarans. Emissions from the facility for the year 2000 from Glacier Bay Catamarans were 17 tons of styrene. Glacier Bay Catamarans was a major source of hazardous air pollutants (HAPs) while the current sources level of operation would not make the source a major source of HAPs.

B. Fees

Filing Fee Paid $1,000 8/27/10

Table 1 Fee calculation

Description	Units	Unit Cost	Cost
Equipment Based Charges			
2 spray coating booths rated at 10,000 cfm	2	$500	$1,000
Total Fee Estimate (for Invoicing)			$1,000

Invoiced 10/21/2010. Paid $1,000 10/27/2010.

C. SEPA Review

The agency issued a Determination of Non-Significance (DNS) for these two filter banks on June 30, 1999. Review of the analysis conducted at the time of the DNS shows that the proposed operation uses materials functionally equivalent as that reviewed in 1999 for NOC 770. This project falls within the scope of previous reviews and the SEPA requirement is satisfied by the agency DNS issued June 30, 1999.

I contacted the City of Monroe on September 30, 2010 inquiring if they have any SEPA concerns regarding the project. Judy Gribble of the City of Monroe contacted me on October 5, 2010 indicating that they have no SEPA concerns but that operation and fire permit may be needed. Therefore I recommended proceeding with this Order of Approval with the SEPA requirement satisfied by the agency DNS issued June 30, 1999 for Order of Approval 7770.

7770-dns.pdf

D. Database Information (Required)

BE Code	55	Code Description	Spray Booth
Year installed	Units installed	Rated capacity	Units of measure
1999	2	10,000	CFM
Comments (Make, model, etc.)		Wall panel filters.	

E. Emission Estimate

The facility is expected to operate from 6:00am to 3:30pm five days per week. Spray coating is expected to occur 2-6 hours per day. Annual production is expected to be 60 boats per year. Table 2 shows the amount of gelcoat, resin, and putty expected to be used per boat manufactured. Table 3 summarizes the estimated actual emissions for the facility producing 60 boats per year. Hazardous Air Pollutant (HAP) emissions include styrene, methyl methacrylate (MMA), and cobalt compounds. Styrene and MMA are also Volatile Organic Compounds (VOCs).

Table 2 – Material Use Per Boat Produced

Compound	*Mass per Boat (lb)*
Gelcoat	535
Resin	1,750
Putty	240

1. *Estimated ACTUAL emissions*

Table 3 – Estimated Actual Emissions

Gal.	Density (lb/gal)	Use (lb)	% Styrene	Styrene Emission Factor (lb/ton)	Styrene Emitted (lb)	% MMA	MMA Emission Factor (lb/ton)	MMA Emitted (lb)	Solids (lb/gal)	% Cobalt Compounds	Cobalt Compounds Emitted (lb)	Emitted PM (lb)
Gelcoat												
3,172	10.12	32,100	25.6%	167	2,675.5	5.1%	75	1,203.8	6.8	13.5%	0.72	21.7
Resin												
11,602	9.05	105,000	34.2%	97	5,074.1	0%	0	0.0	6.0	0.2%	0.2	69.1
Putty												
1,214	11.86	14,400	23%	57.96	417.3	0%	0	0.0	9.0	0	0.00	0.0

Total styrene (lb)	8,167.0	**Total MMA (lb)**	1203.8	**Total Cobalt Compounds (lb)**	0.9	**Total PM (lb)**	90.8
Total HAP (tpy)	4.7					**Total PM (tpy)**	0.05

Notes:

1. Emissions Factors from *Unified Emission Factors for Open Molding of Composites*, July 23, 2001.
2. Gelcoat emission factor for Controlled Spray Application.
3. Resin emission factor for Mechanical Atomized.
4. Putty emission factor for manual.
5. Particulate filter effectiveness assumed the permit limit of 98%.
6. Transfer efficiency is assumed to be 95%.
7. Capture efficiency of hoods assumed to 100%.
8. Est. Boats per Year: 60.
9. The gelcoat cobalt is is a mixture of cobalt neodecanoate with a molecular weight of 401.44 and cobalt 2-ethylhexanoate with a molecular weight of 345.42. Thus the elemental cobalt emissions for gelcoat have been adjusted by the proportion of each compound, a proportion of 0.165.

2. *POTENTIAL to emit*

Potential to emit is the same as the estimated actual given the production restrictions.

A.) PRODUCTION RESTRICTIONS

Yes. The facility will have an annual styrene emission limit set such that the facility is operated according to the plans and specifications set out in the application (see Section G). This, in effect, will limit the facility to production of approximately 60 boats per year.

3. *Facility wide Emissions*

A.) REPORTING SOURCE

Yes. Facility will likely have actual emissions of greater than 2.5 tons per year of a single HAP. If so, then reporting of the emissions is required by Regulation I, Section 5.05(b).

B.) SYNTHETIC MINOR

No. Given the BACT (see Section G) related emission limitations facility is a true minor source without an applicant requested specific synthetic minor limit.

C.) OPERATING PERMIT

No.

D.) GREENHOUSE GAS EMISSIONS

Facility emits no direct greenhouse gases.

F. Applicable Regulations

1. *PUGET SOUND CLEAN AIR AGENCY*

Regulation I:

Section 5.05(b) requires annual emission reporting.

Section 5.05(c) requires an operation and maintenance plan be developed and implemented;

Section 9.03(a) limits visible emissions to 20 percent opacity.

Section 9.09 limits particulate emissions from a manufacturing process to 0.05 gr/dscf.

Section 9.11 prohibits emissions (e.g., odors, fallout) in sufficient quantities and duration as is likely to cause a nuisance;

Section 9.15 requires that reasonable precautions be used to control visible dust emissions;

Section 9.16 requires the use of a spray booth with an unobstructed vertical stack; and

Section 9.20 requires the spray booth to be maintained in good working order.

Regulation II:

SECTION 3.08 POLYESTER, VINYLESTER, GELCOAT, AND RESIN OPERATIONS

Adopted 06/13/91 (700)
Revised 12/09/93 (769)

(a) This section shall apply to manufacturing operations involving the use of polyester, vinylester, gelcoat, or resin in which the styrene monomer is a reactive monomer for the resin.

(b) It shall be unlawful for any person to cause or allow the application of polyester resin, vinylester resin, gelcoat, or any other resin unless the operation is conducted inside an enclosed area that is registered with the Agency. The exhaust from the operation shall be vented to the atmosphere through a vertical stack. For spray-coating applications of polyester resin, vinylester resin, gelcoat, or any other resin, the enclosed area shall incorporate a dry filter to control the overspray.

(c) It shall be unlawful for any person to use a chopper gun or spray gun to apply polyester resin, vinylester resin, gelcoat, or any other resin, unless the coating is applied by the use of one of the following methods:

(1) High volume, low pressure (0.1 to 10 psig air pressure for atomization) spray equipment,

(2) Electrostatic spray equipment,

(3) Airless spray equipment, or

(4) Air-assisted airless spray equipment.

(d) The provisions of Section 3.08(c) shall not apply to touchup and repair using a hand-held, air atomized spray gun that has a container for resin as part of the gun.

(e) It shall be unlawful for any person to use any VOC-containing material for the cleanup of spray equipment, including resin lines, unless equipment for collecting the VOC-containing material and minimizing the evaporation to the atmosphere is employed. All VOC-containing materials that are flushed through the spray equipment or lines during cleanup shall be collected in a closed container.

(f) It shall be unlawful for any person to use open containers for the storage or disposal of VOC-containing materials. Such containers and tanks shall be kept closed except when being cleaned or when materials are being added, mixed, or removed. Closed containers for solvent rag or paper disposal are required. Empty containers as defined in WAC 173-303-160 are exempt.

2. ***State***

WAC 173-400-040 General Standards for maximum emissions contains similar nuisance requirements.

RCW 70.94.152(7) contains a similar requirement to operate the booth in good working order.

3. *Federal*

40 CFR 63 Subpart VVVV – Boat Building NESHAP; and 40 CFR Subpart WWWW – Plastics Composites NESHAP, both do not apply to this minor source. However, the organic HAP limits of material in VVVV have been included as tBACT (see Section G).

40 CFR 63 Subpart HHHHHH (paint stripping and surface coating NESHAP) will not apply to this equipment because of condition 3 below which prohibits emissions of specific metallic HAPs and the use of methylene chloride for stripping. The paint filter efficiency requirements of Subpart HHHHHH have been included as BACT and tBACT (see Section G).

4. *Registration Applicability/Fee Classification*

Registration Program Classification – Prior to NOC Application		
Regulation/Citation	**Description**	**Comment**
NA	NA	NA
Fee Citations	**Description**	**Fee Amount**
NA	NA	NA
Total Fee Invoiced		
Changes to Registration Program Status – Following NOC Approval		
Regulation/Citation	**Description**	**Comment**
Reg. I, 5.03(a)(3)(A)	Emission of single HAP >= 2.5 TPY	
Reg. I, 5.03(a)(4)(L)	Reg II, Section 3.08 sources	
Reg. I, 5.03(a)(6)(F)	Mat or Panel filters >= 2,000 cfm	
Fee Citations	**Description**	**Fee Amount**
Reg. I, 5.07(c)	Base registration fee	$1,000
Reg. I, 5.07(c)(3)	Emission fees	$50/ton HAP+$50/ton VOC
Estimated Future Fee Projected		***$1,000+emission fees***

G. Technology Review BACT, RACT, LAER

1. *GENERIC BACT NO*

2. *Similar to: NOC 9923, 7770*

3. *Case-By-Case BACT*

The facility is not a major source of HAPs at the levels of operation requested in the permit. The same equipment and industry at the site (as Glacier Bay Catamarans) did emit major amounts of styrene. Thus, the facility, if not limited, has the potential to emit major amounts of HAPs. The primary emission from the proposed facility is styrene (a HAP, a toxic air pollutant, and a Volatile Organic Compound (VOC)). Secondary HAP and toxic emissions are methyl methacrylate (MMA) and cobalt compounds. Secondary criteria pollutants are particulate matter (PM).

New sources are required to employ both Best Available Control Technology (BACT) for criteria pollutants and for toxic air pollutants (tBACT) per WAC 173-400-113(2) and WAC 173-460-040(3)(a). Typically, for minor sources for which a major source National Emission Standard for Hazardous Air Pollutants (NESHAP) exists, tBACT would be for the minor source to meet the standards set in the NESHAP.

In this case, 40 CFR 63, Subpart VVVV is the NESHAP for Boat Manufacturing. Subpart VVVV contains limits to organic HAPs. Subpart VVVV has provisions for sources to meet the NESHAP in multiple ways including: compliant materials, compliant materials with annual averaging, point value averaging, and add-on controls. Add-on controls might include thermal oxidizers, catalytic oxidizers, adsorbors, condensers, biofilters, plus several other potential technologies.

At the level of emissions proposed, the only considered tBACT option is the compliant materials option with annual averaging. With small changes to their chosen materials it may be possible for the source to meet the limits using just compliant materials. If the source desires to emit at levels greater than that proposed (a combined 5 tons per year of styrene and MMA), then further analysis of the technical and economic feasibility of add-on controls would be needed. As such, the agency has set a tBACT limit of compliant materials (with and/or without averaging) and emission of combined styrene and MMA no greater than five tons per year. If the 5 tons per year limit is exceeded, the permit will require that the source report that to the agency. At that time the agency will review the source calculations and if the exceeding value is confirmed then require that a application to modify the order be submitted with a revised BACT and tBACT evaluation of the technical and economic feasibility of add-on controls.

BACT for PM and tBACT for cobalt is for emissions to pass emissions through a particulate filter of at least 98 percent efficiency to a vertical stack. Ninety-eight percent efficient filters are readily available for spray coatings. This is the same filter efficiency standard included in the Spray coating area source NESHAP. Additionally, because, at the level of proposed emissions with controls, no visible emissions are expected from this source, BACT for particulate is no visible emissions.

H. Ambient Impact Analysis

At 0.05 tons per year, particulate matter emissions are substantially less than the emission thresholds in WAC 173-400-030(27). Based on such small emission rate of particulate matter, no dispersion modeling was done for particulate.

However, potential emissions of toxic air pollutants may be required to be modeled if their emissions are greater than the small quantity emission rates (SQERs). In this case all the known toxic air pollutants emitted have a 24-hour averaging period. This makes it necessary to determine a maximum daily emission rate. The proposed (and limited operation) is at 60 boats per year. Operating at the proposed level this amounts to 0.23 boats per day on average. However, it could well be that some day production is greater than the average proposed level of activity. Discussions with the source indicate that they expect daily production to be well under a single boat per day. The application notes 2-6 hours per day of spraying, 5 days per week. Assuming a high spraying rate of 6-hours per day and scaling the level of operation to 8,760 hours of operation per year results in a maximum daily production rate of 1.3 boats per day, or

5.7 times their limited annual average production rate. It is considered unlikely that this amount of operation will occur even on a short-term average.

At an operational level of 1.3 boats per day, there would be emission of 176 pounds of styrene, 26 pounds of MMA, and 0.02 pounds of cobalt. At this rate of operation both styrene and cobalt emissions are greater than the SQERs and thus were modeled to determine whether daily emissions would not exceed the ASILs. This estimate of maximum daily emissions is shown in Table 4. The results of the ASIL analysis are shown in Table 5.

Table 4 – Estimated Maximum 24-hour Emissions.

	Gallons	Density (lb/gal)	Use (lb)	% Styrene	Styrene Emission Factor (lb/ton)	Styrene Emitted (lb)	% MMA	MMA Emission Factor (lb/ton)	MMA Emitted (lb)	Solids (lb/gal)	% Cobalt Compounds	Cobalt Emitted (lb)	Emitted PM (lb)
Gelcoat													
	69	10.12	693	25.6%	167	57.8	5.1%	75	26.0	6.8	13.5%	0.015	0.5
Resin													
	251	9.05	2,268	34.2%	97	109.6	0%	0	0.0	6.0	0.2%	0.005	1.5
Putty													
	26	11.86	311	23%	57.96	9.0	0%	0	0.0	9.0	0	0.00	0.0

Total styrene (lb)	176.4	**Total MMA (lb)**	26.0	**Total Cobalt Compounds (lb)**	0.020	**Total Particulate (lb)**	2.0
Total HAP (tpy)	0.1					**Total Particulate (tpy)**	0.00

Notes:

1. Emissions Factors from *Unified Emission Factors for Open Molding of Composites*, July 23, 2001.
2. Gelcoat emission factor for Controlled Spray Application.
3. Resin emission factor for Mechanical Atomized.
4. Putty emission factor for manual.
5. Particulate filter effectiveness assumed the permit limit of 98%.
6. Transfer efficiency is assumed to be 95%.
7. Capture efficiency of hoods assumed to 100%.
8. Est. Boats per day 1.30
9. The gelcoat cobalt is is a mixture of cobalt neodecanoate with a molecular weight of 401.44 and cobalt 2-ethylhexanoate with a molecular weight of 345.42. Thus the elemental cobalt emissions for gelcoat have been adjusted by the proportion of each compound, a proportion of 0.165

Table 5 – ASIL and Odor Analysis

Unit:	Spray Booth Stack	
Emission rate:	1.0000	g/s
Stack Height (approx):	36.00	ft (11.0 m)
Stack diameter (eq. circular)	24.00	inch (0.61 m)
Volumetric Flow rate:	10,000	cfm (4.72 cms)
Exit Velocity	7.742	m/s
Exit Temperature:	293.15	K
Building Height	27.5	ft (8.4 m)
Min Dim	24	m
Max Dim	61	m
Distance to Fenceline:	0.0	m
Annual	70.32	
24-hr	351.6	
1-hr	879	at 45 m

	24-hr (g/s)	*Modeled ($\mu g/m^3$)*	*ASIL ($\mu g/m^3$)*	*mol wt.*	*24-hr Ave. 3-minute ppm*	*Odor Threshold (ppm)*	*Max 3-minute use (g/s)*	*Modeled Max 3-minute Concentration (ppm)*
Cobalt	1.05E-04	0.04	0.1	58.9	NA	NA	NA	NA
Methyl Methacrylate	1.36E-01	48	700	100.1	0.053	0.083	7.5	2.9
Styrene	9.26E-01	326	900	104.2	0.348	0.32	7.5	7.0

Note:

1. Short term 24-hr emission rate based on scaling 6 hours of spraying per day up to 8760 hours per year.
2. Maximum 3-minute emission rate based on 2 guns operating at 12 oz/ minute for three minutes of clear gelcoat (up to 48% styrene).

Review of Table 5 shows that for cobalt and styrene, at the estimated 24-hour emission rate, concentrations of both compounds are estimated using TSCREEN to be less than the ASILs.

While there are neither ambient concentrations standards for odor nor any sort of ASIL for odor, there is agency Regulation I, Section 9.11 which sets out an actionable level of odor as a source of odor that is distinct, definite, with recognizable unpleasant characteristics that elicits a complaint. Odor thresholds used in modeling are developed by polling a panel of people as to what concentration they are able to detect the presence of a given substance. Because of this, odor thresholds are an average of a small number of people's ability to smell a substance and modeling concentration above an odor threshold do not show that all people will necessarily detect an odor. Similarly modeling concentrations below an odor threshold does not indicate that all people will detect no odor. At best, the modeling of odor threshold gives a qualitative impression as to whether an odor might be present.

In this case, modeling of the expected maximum level of operations (60 boats per year) showed both MMA and styrene being emitted on-average at concentrations less than the odor thresholds. However, a worst case assumption of two guns spraying at 12 oz per minute a 48% styrene (or MMA) high density coating indicates that for short periods emission ambient concentrations may be well above the odor thresholds. In the middle ground, at the maximum daily production rate of 1.3 boats per day, styrene was slightly above the odor threshold but MMA was not.

Thus, the odor analysis indicates that at the proposed level of operations the odor level on average will be low but it is possible that detectable levels of odor could occur from the facility. This is consistent with the past history of the facility. When the facility operated as Glacier Bay Catamarans, during inspections, styrene odor was sometimes noted outside the facility. The Glacier Bay Catamarans facility operated at levels several times the level proposed in this application and did not have a history of odor complaints. The closest residential housing is a quarter mile away from the facility and all the nearby area is an industrial area. Therefore, while some odor may be present over short periods, it is not expected to generate complaints, impact residential areas, or be an ongoing problem. Because there is the potential for ambient odor a complaint recording and response permit condition has been included in Section K.

I. Public Notice Requirement

No.

J. Operating Permit or PSD

No.

K. Recommended Approval Conditions

3. Fluid Motion shall not apply coatings containing chromium, lead, manganese, nickel, or cadmium. Fluid motion shall not use methylene chloride (MeCl) for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates.

4. Fluid Motion shall not exceed the organic Hazardous Air Pollutant (HAP) content specifications in a) through g) of this condition using a 12-month rolling weighted average.
   a. Production resin applied with atomized spray shall not exceed 28 percent organic HAP.
   b. Production resin applied through nonatomized (nonspray) methods shall not exceed 35 percent organic HAP.
   c. Pigmented gelcoat shall not exceed 33 percent organic HAP.
   d. Clear gelcoat shall not exceed 48 percent organic HAP.
   e. Tooling resin applied with atomized spray shall not exceed 30 percent organic HAP.
   f. Tooling resin applied through nonatomized (nonspray) methods shall not exceed 39 percent organic HAP.
   g. Tooling gel coat shall not exceed 40 percent organic HAP.

5. To demonstrate compliance with Condition 4:
   a. For each resin and gelcoat, record the organic HAP content.
   b. For each production resin and tooling resin, record the application method.
   c. For each resin and gelcoat, record the amount of material used each month.
   d. If each resin and gelcoat is not greater than the organic HAP content specifications in Condition 4.a through 4.g then compliance has been demonstrated.
   e. For any month where a resin or gelcoat exceeds the specifications in 4.a through 4.g then for the category of material and application method calculate the previous 12-month rolling weighted average using the calculation method in 40 CFR 63.5713 equation 1.

6. If any of the calculations carried out in Condition 5.e demonstrates a value exceeding one of the organic HAP specifications in Condition 4, provide a report to the agency within 30 days of the end of the month in which the calculation was carried out showing the calculation, the data that was used in the calculation, and the value calculated.

7. Fluid motion shall limit combined styrene and methyl methacrylate emissions during any 12-month period to no greater than 5 tons. Each month calculate the previous 12-months total emissions of styrene and methyl methacrylate using the Unified Emission Factors for Open Molding of Composites.

8. If the combined emissions of styrene and methyl methacrylate during any 12-month period are greater than 5 ton limit in Condition 7, then provide a report to the agency within 30 days of the end of the month in which the calculation was carried out showing the calculation, the data that was used in the calculation, and the value calculated.

9. Fluid Motion shall use in these booths only spray equipment that achieves transfer efficiency equal to or greater than 65%, which includes but is not limited to, HVLP or air assisted airless spray guns, for the application of resin, gel-coat and other paint. Fluid Motion shall maintain records onsite demonstrating the spray equipment's efficiency.

10. Spray booth exhaust filters shall have a capture efficiency of 98% or greater, as demonstrated consistent with ASHRAE Method 52.1, Gravimetric and Dust Spot Procedures for Testing Air Cleaning Devices Used in General Ventilation for Removing Particulate Matter, or equivalent test method accepted by the Agency.

11. Fluid Motion shall not allow visible emissions from the spray coating operations.

12. The spray booths shall be equipped with a gauge (manometer or magnehelic) to measure the pressure drop across the exhaust filters. Within 30 days after the start of operation, the acceptable pressure drop range shall be clearly marked on or near the gauge. The minimum pressure drop shall not be less than the pressure drop measured with a clean, properly installed filter.

13. Once each shift of operation, each spray booth shall be inspected for:
    a. Is the pressure drop measurement device operating?
    b. Is the pressure drop across the exhaust filter within the acceptable range?
    c. Does the exhaust filter completely cover the exhaust plenum?

14. Record the results of each inspection in a written log. If any of the above (in 13.a) through c)) problems are identified, discontinue spray coating operations until corrective action has fixed the problem, and document corrective action in a written log.

15. Fluid Motion shall use best management practices in its sanding, painting, and fiber glassing activities in the area. These practices include the collection of VOC-containing materials used for cleanup of equipment to minimize evaporation, keeping containers used for the storage and disposal of VOC-containing materials closed except when cleaning the containers, adding material to the containers, mixing material in the containers, or removing material from the containers.

16. Fluid Motion shall investigate and document complaints regarding odor, fugitive dust, or nuisance as soon as possible, but no later than 2 hours after receipt of the complaint. The O&M Plan shall include good industrial practices for returning the plant to compliant status within 24 hours, if the cause of the complaint is verified to originate from this plant. Complaint records shall include:
    a. The name, phone number and address of a complainant (if known);
    b. The date, time and nature of complaints; and

c. The date, time, results and corrective actions of any complaint investigations.

17. All records of observations and supporting documentation which are required by this Order shall be completed contemporaneously and no later than the time period specified in the appropriate condition. Records to be maintained by this Order of Approval shall be kept for at least two years from the date of generation, and made available to Puget Sound Clean Air Agency personnel upon request.

L. Recommendation for Legal Review

No.

M. Other Comments

1. *E-mail to Oguz Aksan, September 24, 2010*

From: Brian Renninger
To: "oaksan@aol.com"
Subject: NOC 10220 Fluid Motion Application Incomplete
Date: Friday, September 24, 2010 12:01:00 PM

Mr. Aksan,

Thank you for your application for a fiberglass boat building facility. I believe you previously spoke with Ms. Jüttner of our agency regarding your application. Due to workload and facility history issues your permit application has been assigned from Ms.Jüttner to myself.

Unfortunately, your application is incomplete. Answers to the following questions will be needed to bring your application toward completeness.

1. SEPA. The SEPA checklist you provided is incomplete. Specifically, the two questions on the first page were not answered, item 8.a was not answered, 14.a, and additionally the date block for the signature was not completed. Please provide a complete signed copy of the SEPA checklist. I understand that these are minor points but SEPA is particular in regards to checklist completeness.

2. SEPA. In addition to the provided SEPA checklist, your application also includes a request that SEPA fees be waived. The way to avoid SEPA fees is for the current application's activities to have already have been reviewed under SEPA. While the agency has issued a number of SEPA determinations for previous permits at the site, your application needs to identify which determination you believe is the appropriate determination to rely on and also to present the argument as to why the historically reviewed activities are equivalent to your proposed activities. The argument should present comparisons in products, material compositions, and overall emission types and amounts.

3. Emission inventory. Please provide the MSDS sheets for each gel coat, resin, putty, and other emitting material used in your process.

4. Emission inventory. Please provide the background reference material for the emission factors used in the application. These appear to be the Unified Emission Factors for Open Molding of Composites but I have not been able to verify this for all cases.

5. Emission inventory. From the emission factors used in your application it appears that for gel coat application the emission factor was chosen based on controlled spray application. Please provide a discussion of planned spray gun pressure calibration procedures and spray operator training that will be in place to ensure that actual emissions will match the chosen emission factor.

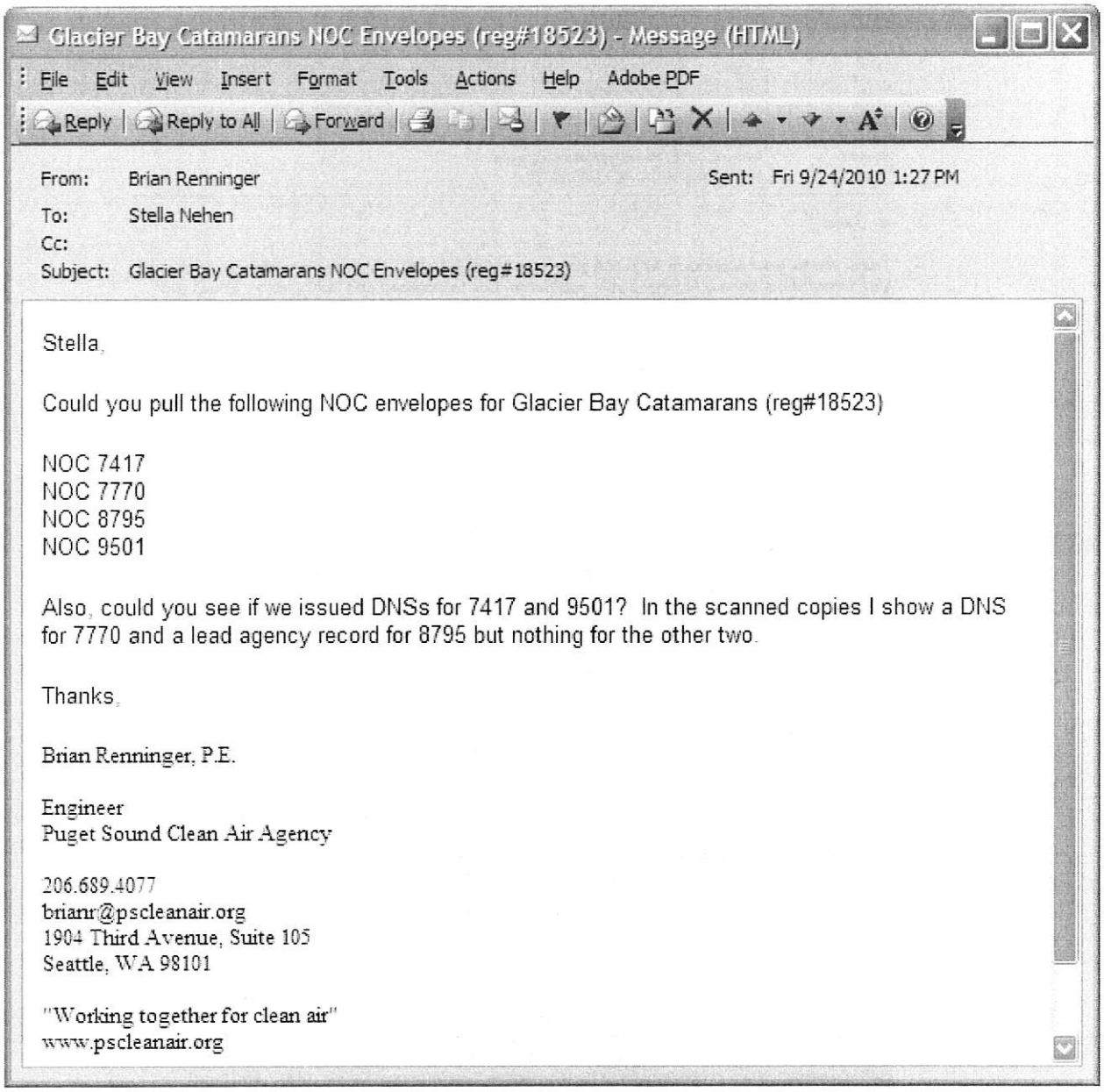
6. Emission inventory. From the emission factor chosen for putty application I was not able to confirm the emission factor. As in (4) above please provide the reference for the putty application emission factor.

7. Emission inventory. The emission inventory includes a category of "other HAPs". Please provide how these other HAP emissions were determined and also a specification what they are and in what amounts they are emitted. Note that this is necessary in order to determine which of the HAPs are also toxic air pollutants included in Department of Ecology's rule WAC 173-460. A complete review of facility released toxics in comparison to the Acceptable Source Impact Levels (ASIL) and Small Quantity Emission Rates (SQERs) is needed in order to complete your application.

8. Emission inventory. Please provide a description of which products will be emitted from each stack. Is gel coat and resin applied near both filters or is each activity more specific to a particular filter. This information may be necessary in regards to the ASIL review mentioned in (7) above.

9. Emission inventory. Please provide an emission inventory for particulate and VOC in addition to the

2. ***E-mail to Stella Nehan, September 23, 2010***



Glacier Bay Catamarans NOC Envelopes (reg#18523) - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Fri 9/24/2010 1:27 PM

To: Stella Nehen

Cc:

Subject: Glacier Bay Catamarans NOC Envelopes (reg#18523)

Stella,

Could you pull the following NOC envelopes for Glacier Bay Catamarans (reg#18523)

NOC 7417
NOC 7770
NOC 8795
NOC 9501

Also, could you see if we issued DNSs for 7417 and 9501? In the scanned copies I show a DNS for 7770 and a lead agency record for 8795 but nothing for the other two.

Thanks,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

3. *E-mail from Oguz Aksan, September 24, 2010*

Fwd: MSDS Sheets - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

You replied on 9/30/2010 1:32 PM.

From: Oguz Aksan [oaksan@aol.com] Sent: Mon 9/27/2010 10:48 AM

To: Brian Renninger

Cc:

Subject: Fwd: MSDS Sheets

Attachments: image.png (4 KB); ATT00001.htm (341 B); AME6000-T25.pdf (763 KB); ATT00002.htm (333 B); S5606B-32.pdf (692 KB); ATT00003.htm (322 B)

Brian,

I have the rest on sheet of paper which i will send to you tonight.

I left a message with Stella Nethan. She may call you to get my e mail.

Thanks.

Oz

Sent from Oz Aksan

Begin forwarded message:

From: dbell@nacomposites.com
Date: September 27, 2010 9:53:30 AM PDT
To: oaksan@aol.com
Cc: dbell@nacomposites.com
Subject: MSDS Sheets

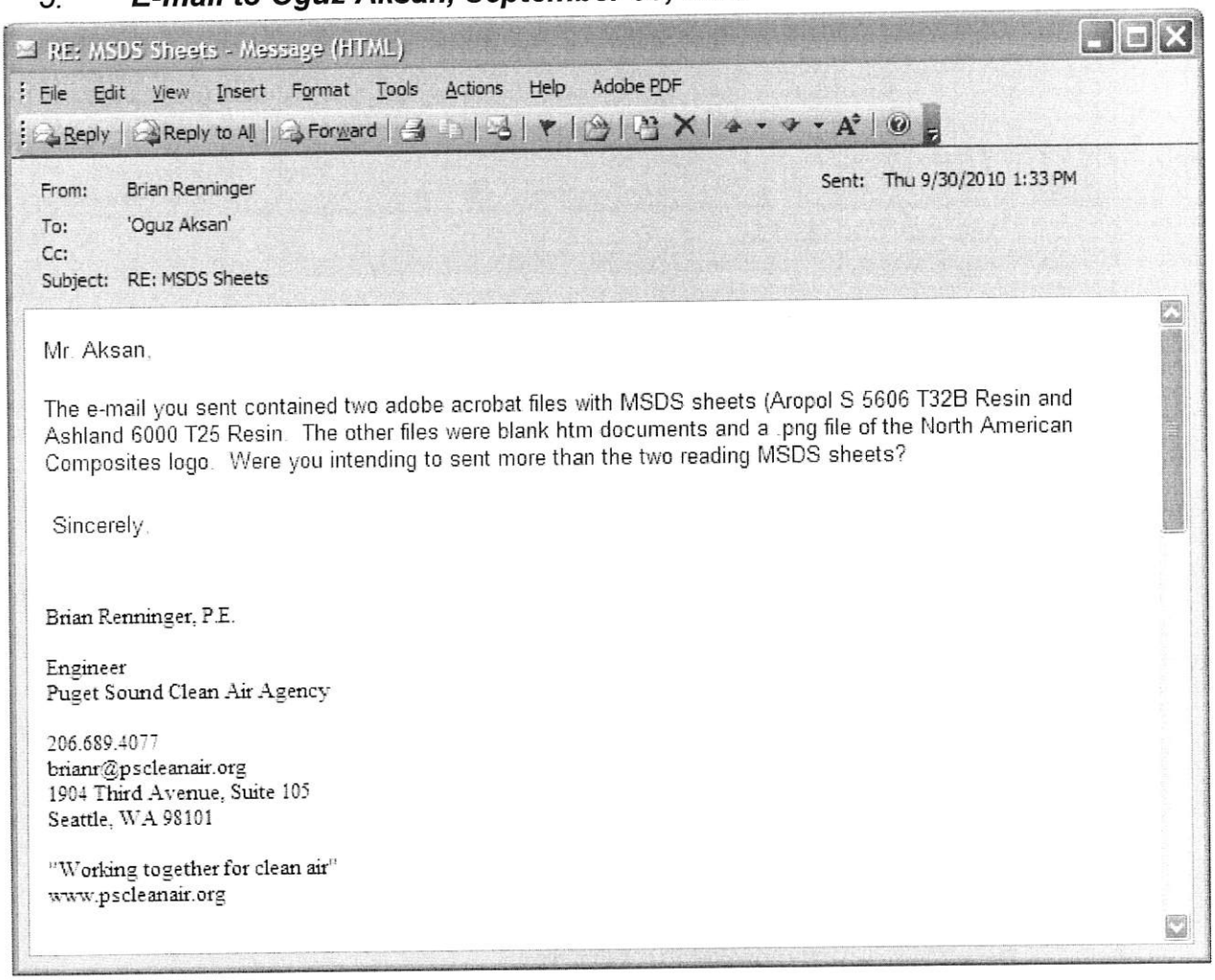
Best Regards,

David Bell
Sales Representative - NW District
Cell: 253.951.8677
C.S.: 800.735.8667
Fax: 253.876.9084
Web: www.NAComposites.com

4. *E-mail from Oguz Aksan, September 29, 2010*

Acrobat Document

5. ***E-mail to Oguz Aksan, September 30, 2010***



RE: MSDS Sheets - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger
Sent: Thu 9/30/2010 1:33 PM
To: 'Oguz Aksan'
Cc:
Subject: RE: MSDS Sheets

Mr. Aksan,

The e-mail you sent contained two adobe acrobat files with MSDS sheets (Aropol S 5606 T32B Resin and Ashland 6000 T25 Resin. The other files were blank htm documents and a .png file of the North American Composites logo. Were you intending to sent more than the two reading MSDS sheets?

Sincerely,

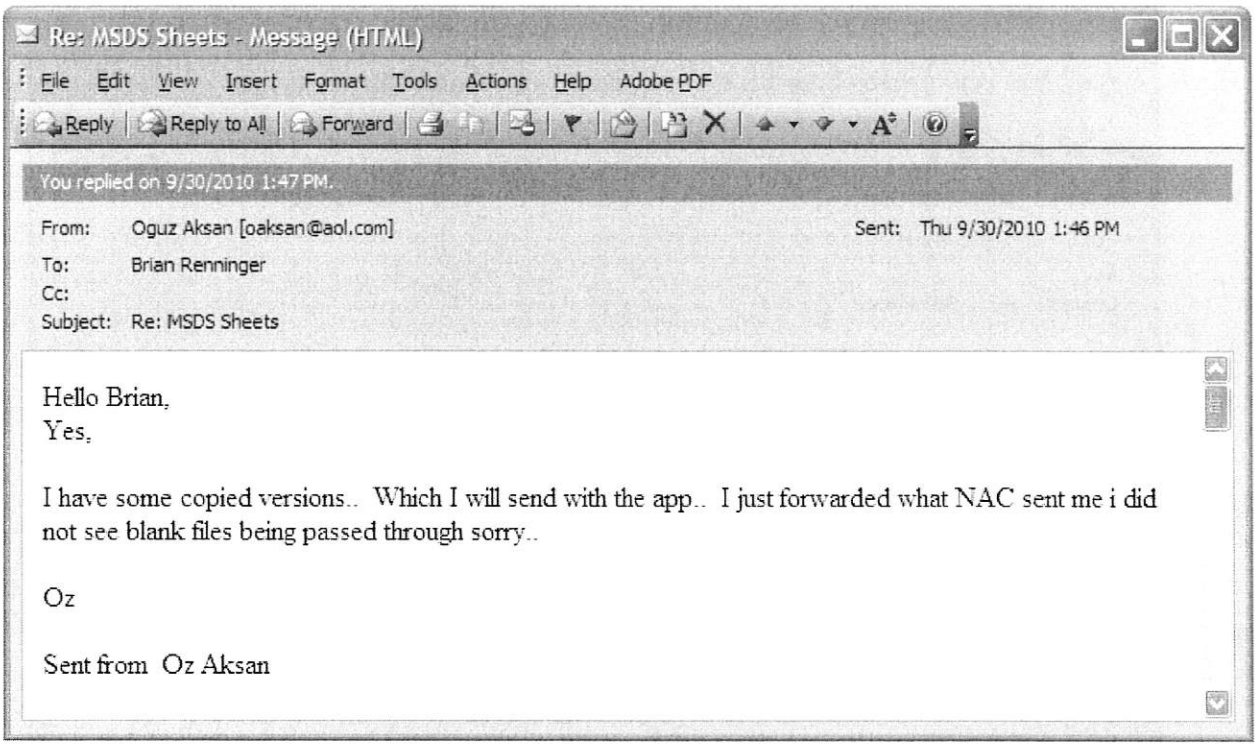
Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

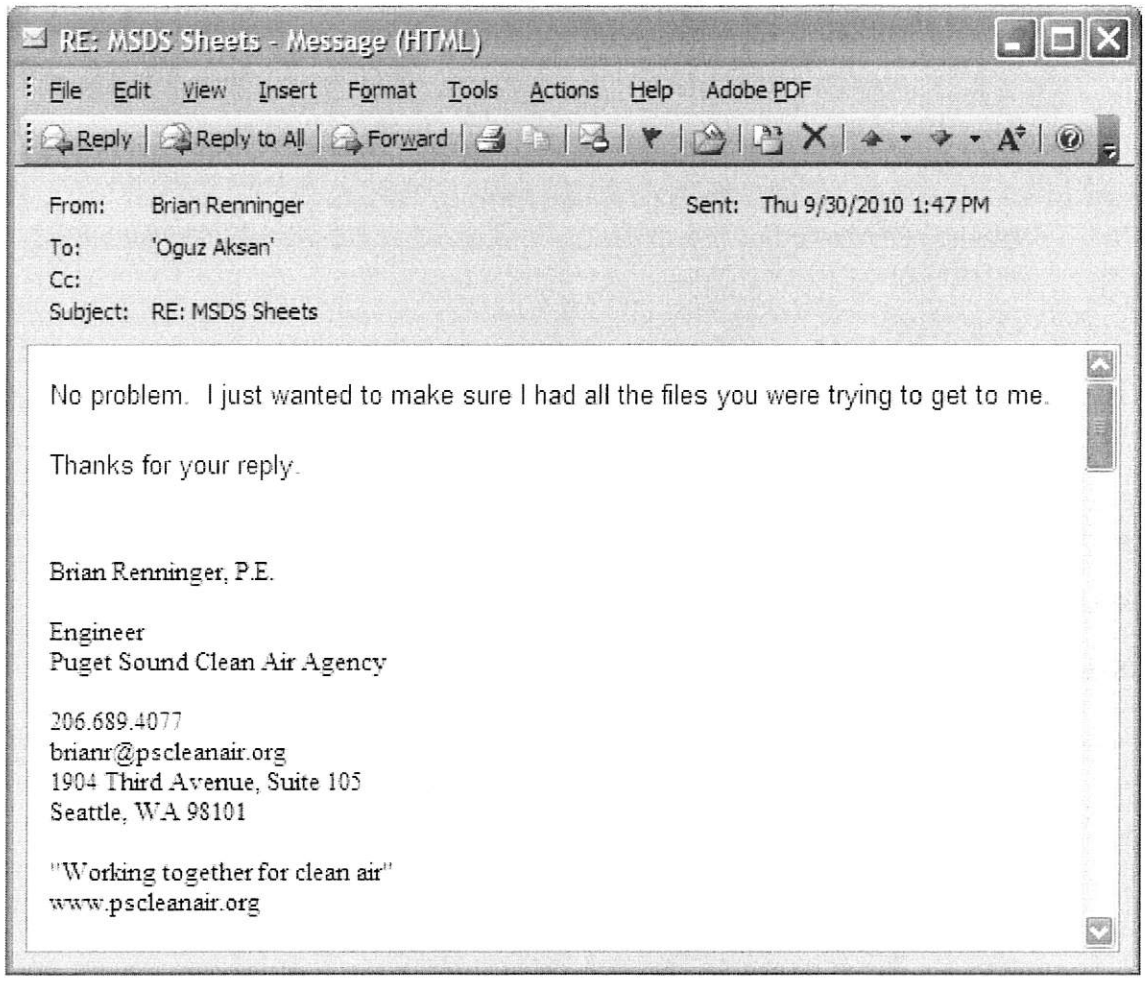
206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

6. *E-mail from Oguz Aksan, September 30, 2010*



7. ***E-mail to Oguz Aksan, September 30, 2010***



RE: MSDS Sheets - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Thu 9/30/2010 1:47 PM
To: 'Oguz Aksan'
Cc:
Subject: RE: MSDS Sheets

No problem. I just wanted to make sure I had all the files you were trying to get to me.

Thanks for your reply.

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

8. ***E-mail to Oguz Aksan, September 30, 2010***

RE: NOC 10220 Fluid Motion Application Incomplete - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Thu 9/30/2010 2:34 PM
To: 'Oguz Aksan'
Cc:
Subject: RE: NOC 10220 Fluid Motion Application Incomplete
Attachments: Receipt 91336 Fluid Motion.pdf (8 KB)

Mr. Aksan,

Please find attached a copy of a receipt for your NOC application filing fee. Receipts are not as a matter of procedure provided except upon request. I apologize for any confusion regarding whether a receipt is available.

Sincerely,

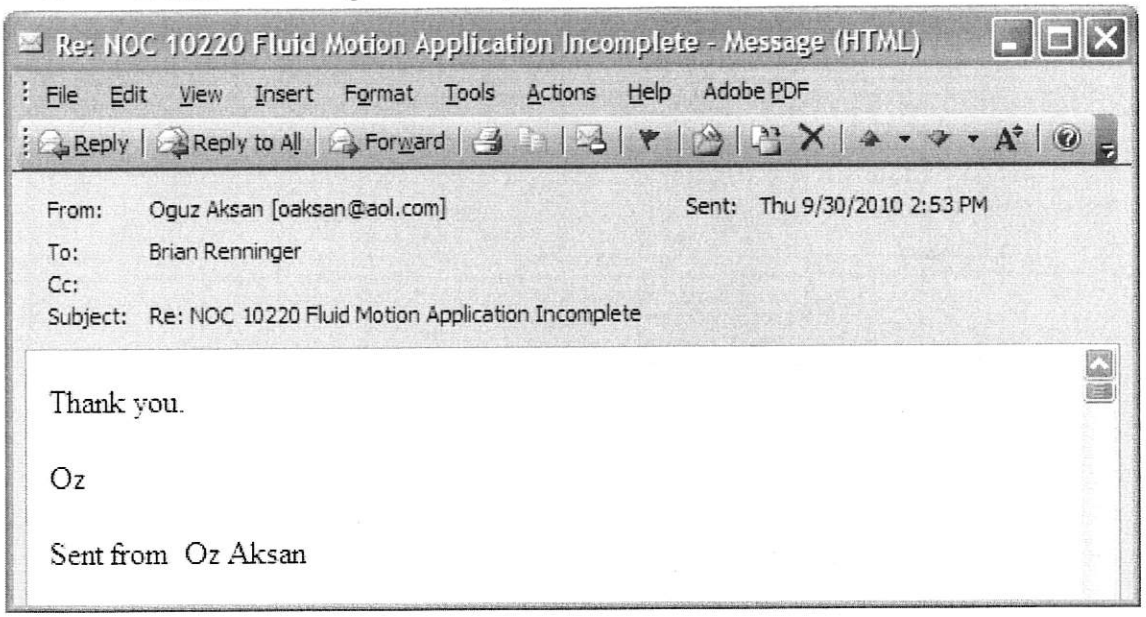
Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

9. ***E-mail from Oguz Aksan, September 30, 2010***



10. E-mail to Judy Gribble, City of Monroe, September 30, 2010

SEPA for Fluid Motion. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Thu 9/30/2010 2:10 PM

To: 'jgribble@ci.monroe.wa.us'

Cc:

Subject: SEPA for Fluid Motion.

Attachments: Fluid Motion SEPA Checklist.pdf (413 KB)

Ms. Gribble,

The agency has received a Notice of Construction application from Fluid Motion for a fiberglass boat building facility. The facility is located at 17341 Tye Street SE. I have attached the provided SEPA checklist for your review.

This facility is the former location of Glacier Bay Catamarans and is using the equipment installed at the site by Glacier Bay Catamarans to construct its boats. The equipment proposed to be used by Fluid Motion are the two spray booths permitted by the agency by Order of Approval 7770 in 1999. At that time, the agency also issued a Determination of Non-Significance (DNS) for the project. Unless, there are currently other licenses (for which SEPA is required) to be issued, given the similarity in equipment, use, and emissions, the agency is planning on relying on the 1999 DNS for the current application. Please let me know if the City has any licenses to be issued for this project.

Sincerely,

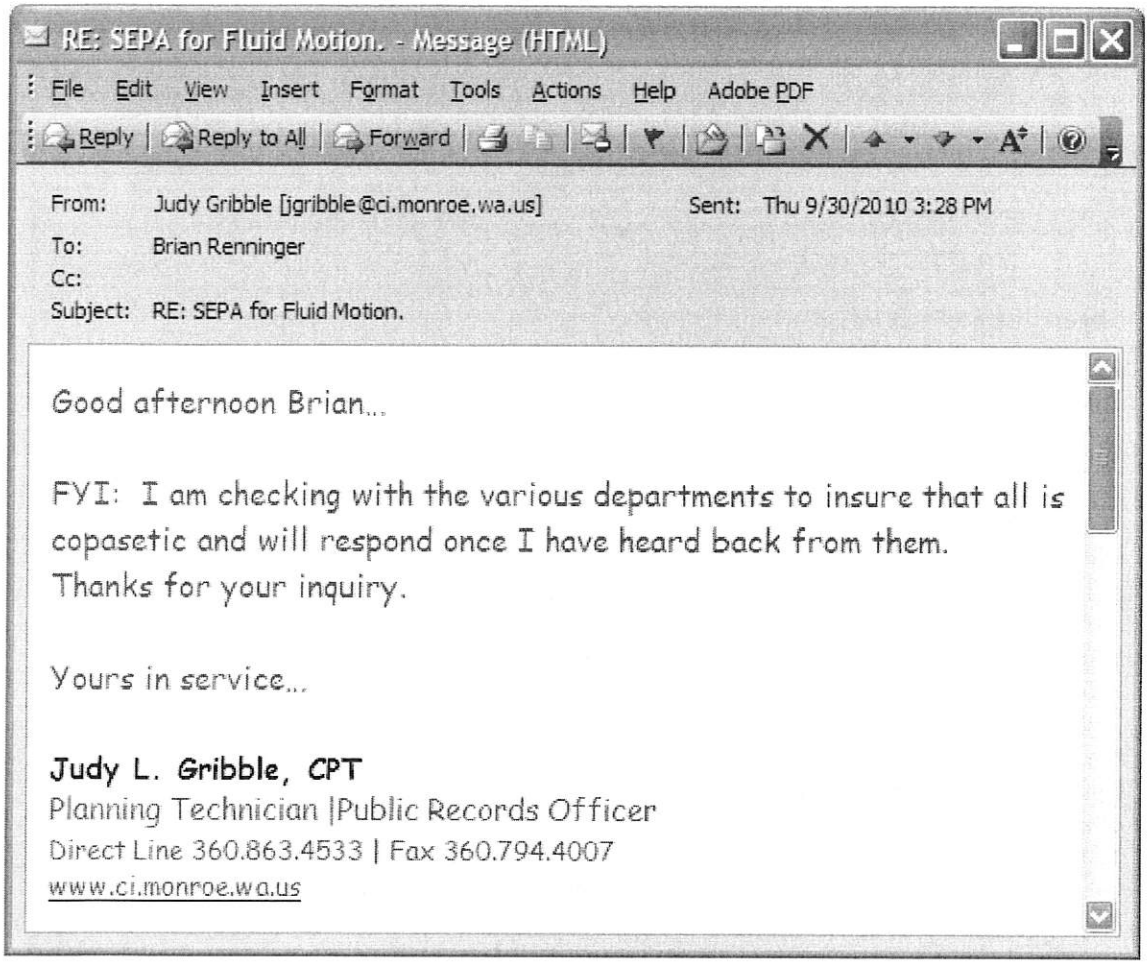
Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

11. ***E-mail from Judy Gribble, City of Monroe, September 30, 2010***



RE: SEPA for Fluid Motion. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Judy Gribble [jgribble@ci.monroe.wa.us] Sent: Thu 9/30/2010 3:28 PM

To: Brian Renninger

Cc:

Subject: RE: SEPA for Fluid Motion.

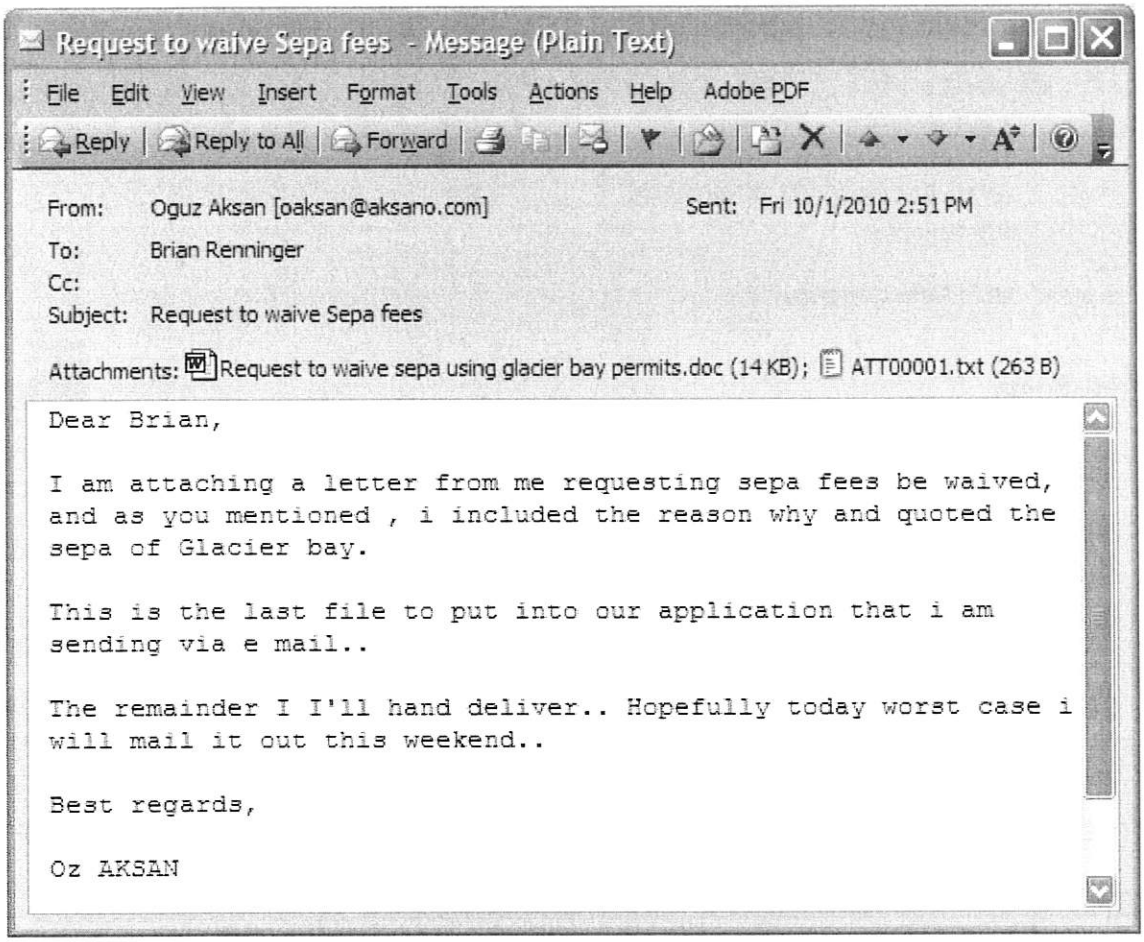
Good afternoon Brian...

FYI: I am checking with the various departments to insure that all is copasetic and will respond once I have heard back from them.
Thanks for your inquiry.

Yours in service...

Judy L. Gribble, CPT
Planning Technician |Public Records Officer
Direct Line 360.863.4533 | Fax 360.794.4007
www.ci.monroe.wa.us

12. *E-mail from Oguz Aksan, October 1, 2010*



Request to waive Sepa fees - Message (Plain Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Oguz Aksan [oaksan@aksano.com] Sent: Fri 10/1/2010 2:51 PM

To: Brian Renninger

Cc:

Subject: Request to waive Sepa fees

Attachments: Request to waive sepa using glacier bay permits.doc (14 KB); ATT00001.txt (263 B)

Dear Brian,

I am attaching a letter from me requesting sepa fees be waived, and as you mentioned , i included the reason why and quoted the sepa of Glacier bay.

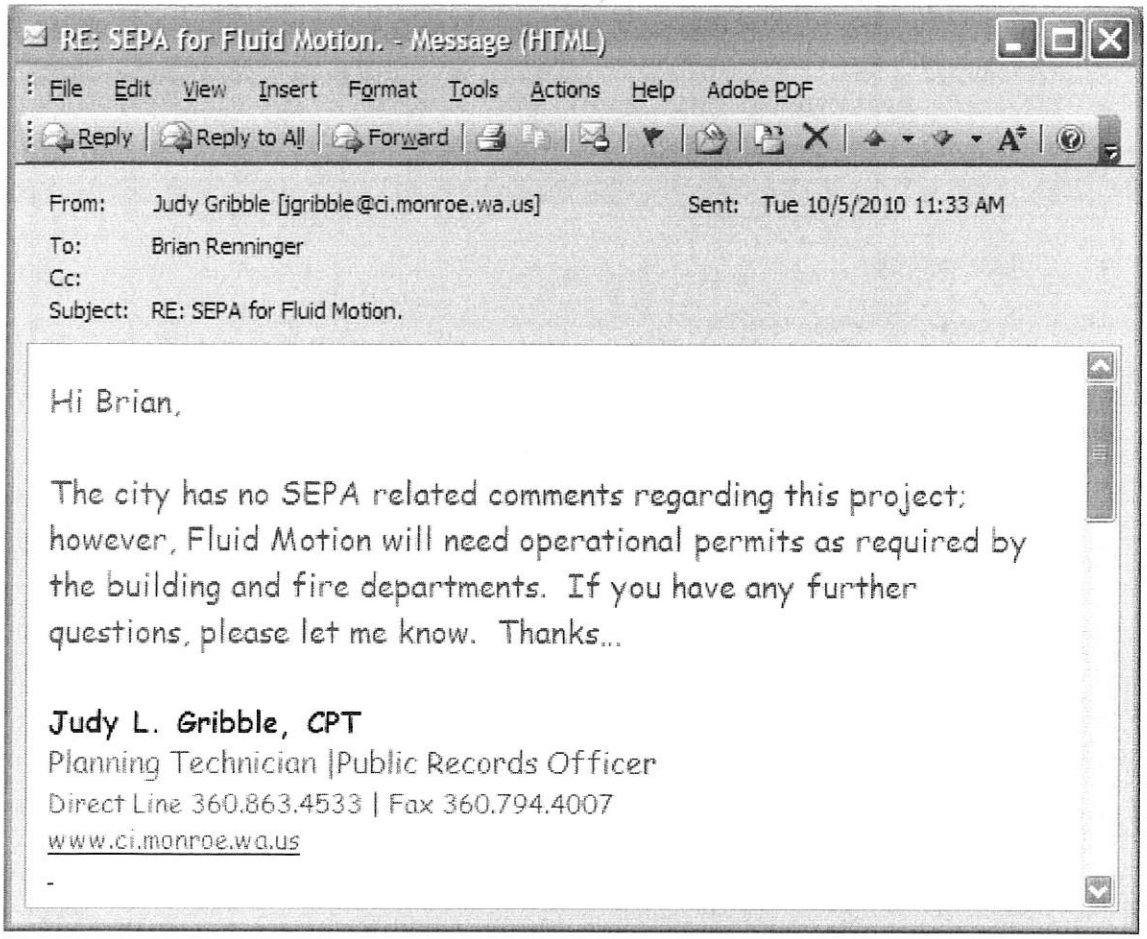
This is the last file to put into our application that i am sending via e mail..

The remainder I I'll hand deliver.. Hopefully today worst case i will mail it out this weekend..

Best regards,

Oz AKSAN

13. ***E-mail from Judy Gribble, City of Monroe, October 5, 2010***



RE: SEPA for Fluid Motion. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Judy Gribble [jgribble@ci.monroe.wa.us] Sent: Tue 10/5/2010 11:33 AM

To: Brian Renninger

Cc:

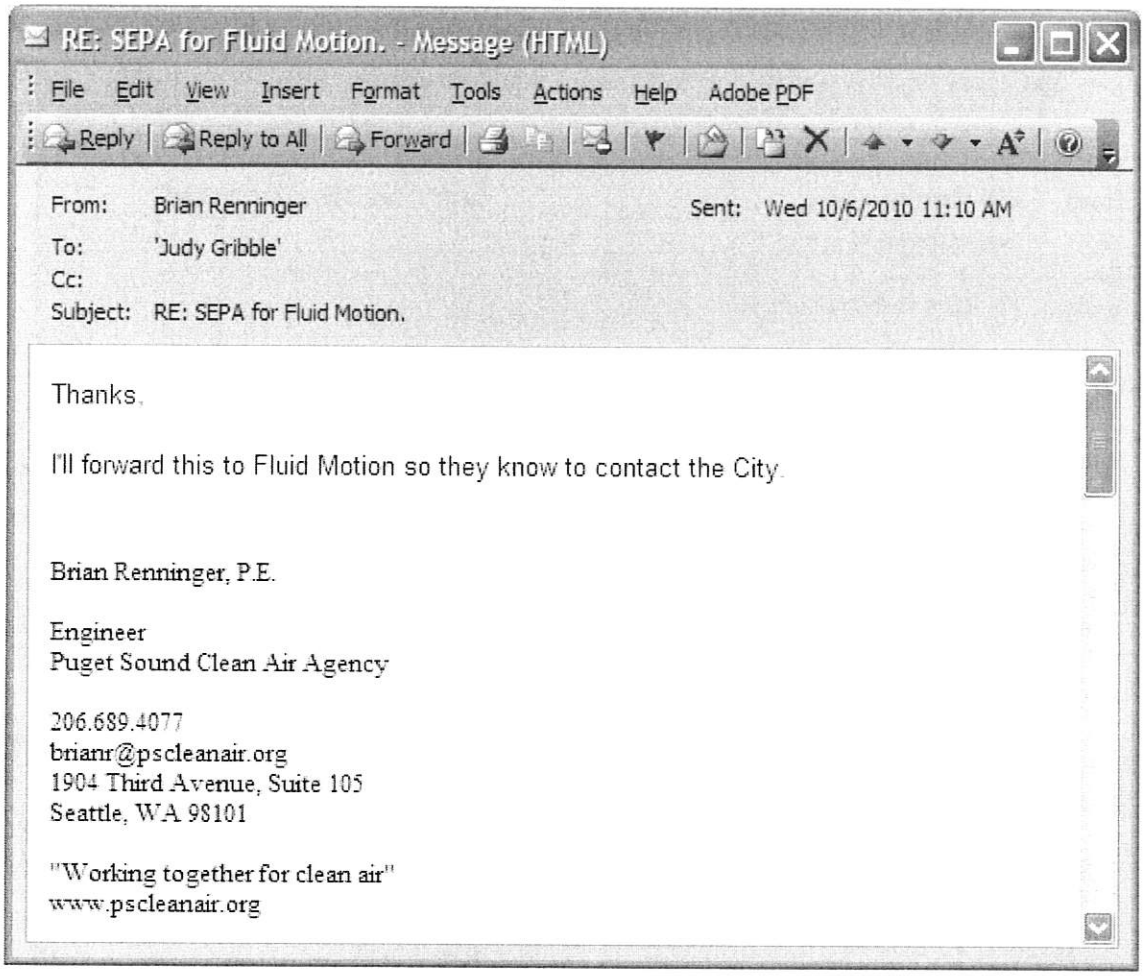
Subject: RE: SEPA for Fluid Motion.

Hi Brian,

The city has no SEPA related comments regarding this project; however, Fluid Motion will need operational permits as required by the building and fire departments. If you have any further questions, please let me know. Thanks...

Judy L. Gribble, CPT
Planning Technician |Public Records Officer
Direct Line 360.863.4533 | Fax 360.794.4007
www.ci.monroe.wa.us

14. *E-mail to Judy Gribble, City of Monroe, October 6, 2010*



RE: SEPA for Fluid Motion. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Wed 10/6/2010 11:10 AM
To: 'Judy Gribble'
Cc:
Subject: RE: SEPA for Fluid Motion.

Thanks.

I'll forward this to Fluid Motion so they know to contact the City.

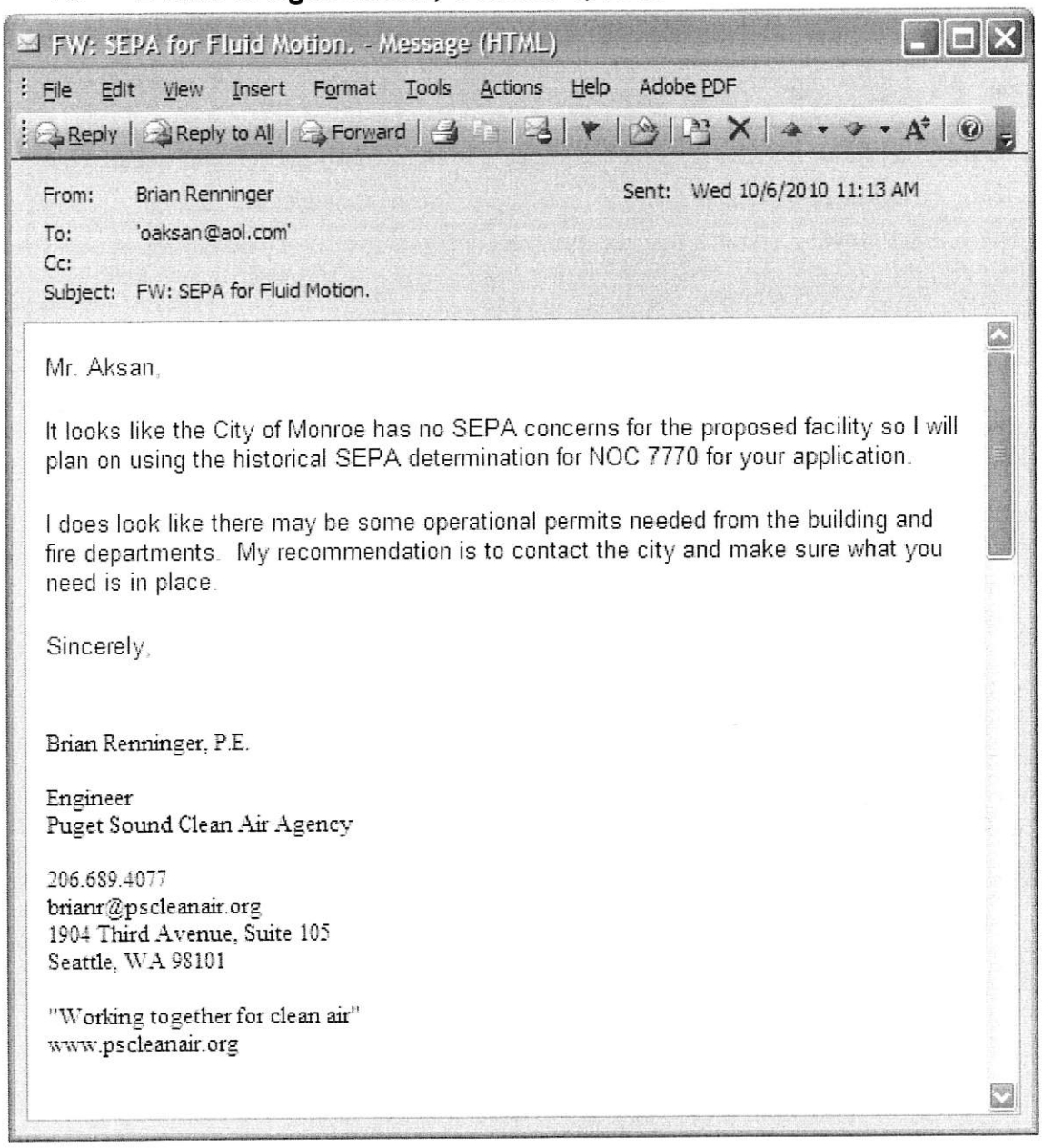
Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

15. *E-mail to Oguz Aksan, October 6, 2010*



FW: SEPA for Fluid Motion. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Wed 10/6/2010 11:13 AM
To: 'oaksan@aol.com'
Cc:
Subject: FW: SEPA for Fluid Motion.

Mr. Aksan,

It looks like the City of Monroe has no SEPA concerns for the proposed facility so I will plan on using the historical SEPA determination for NOC 7770 for your application.

I does look like there may be some operational permits needed from the building and fire departments. My recommendation is to contact the city and make sure what you need is in place.

Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

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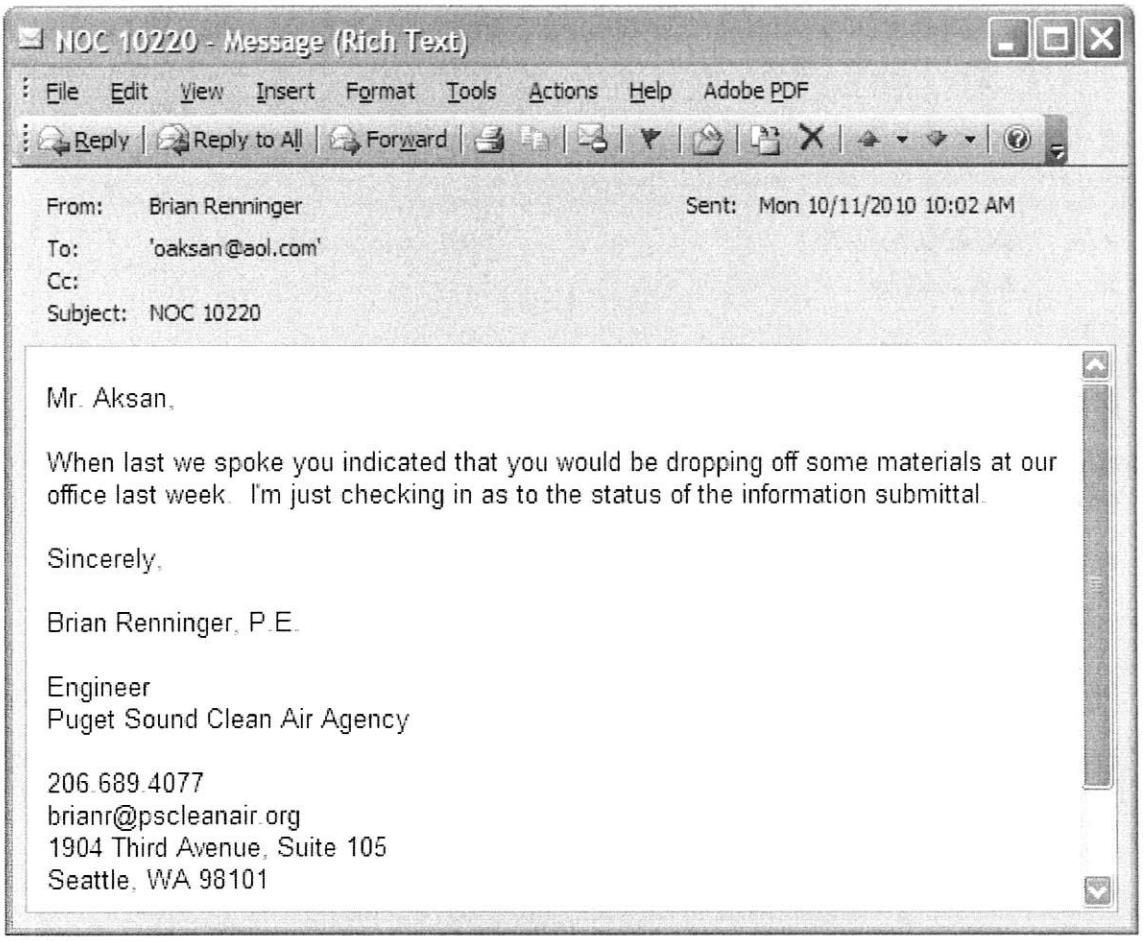
www.pscleanair.org

16. *E-mail to Oguz Aksan, October 11, 2010*



NOC 10220 - Message (Rich Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Mon 10/11/2010 10:02 AM
To: 'oaksan@aol.com'
Cc:
Subject: NOC 10220

Mr. Aksan,

When last we spoke you indicated that you would be dropping off some materials at our office last week. I'm just checking in as to the status of the information submittal.

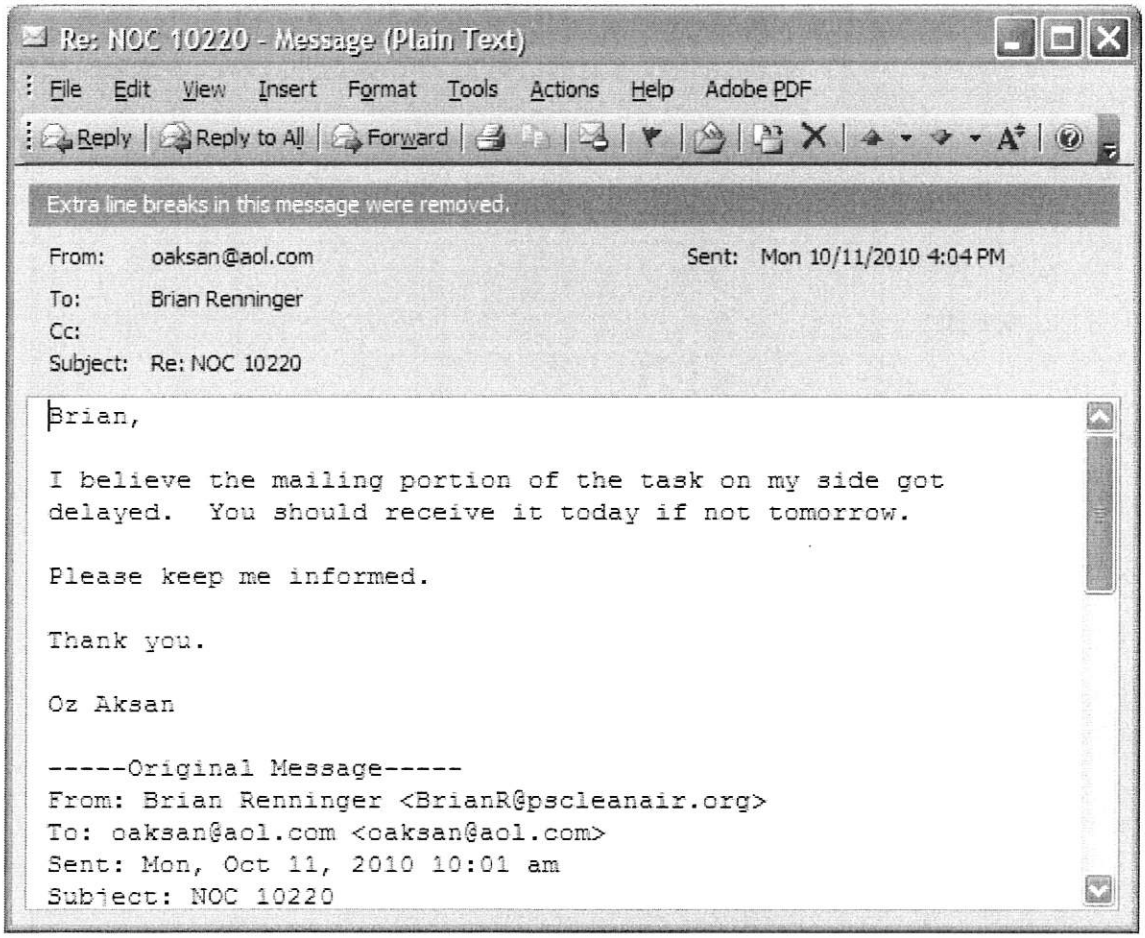
Sincerely,

Brian Renninger, P.E.

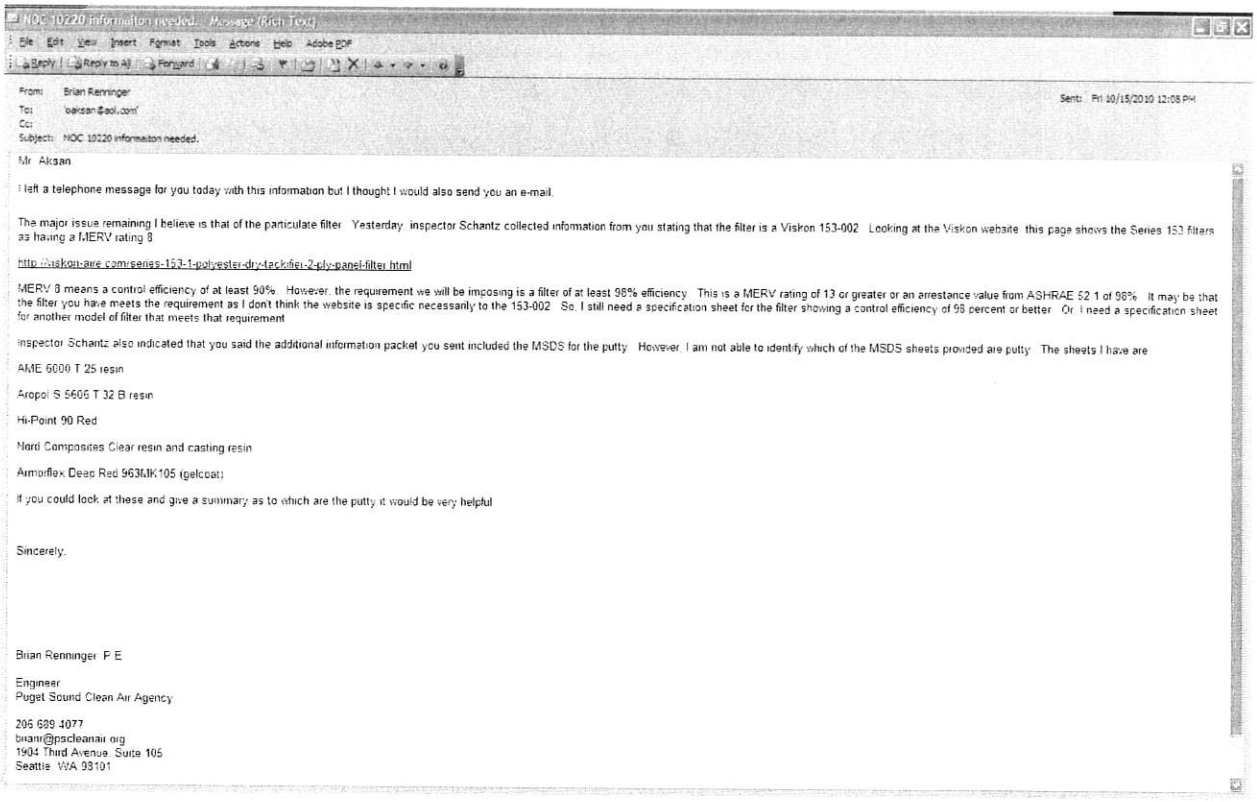
Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

17. *E-mail from Oguz Aksan, October 11, 2010*



18. *E-mail to Oguz Aksan, October 15, 2010*



NOC 10220 information needed. - Message (Rich Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger
To: 'oaksan@aol.com'
Cc:
Subject: NOC 10220 information needed.
Sent: Fri 10/15/2010 12:08 PM

Mr. Aksan

I left a telephone message for you today with this information but I thought I would also send you an e-mail.

The major issue remaining I believe is that of the particulate filter. Yesterday inspector Schantz collected information from you stating that the filter is a Viskon 153-002. Looking at the Viskon website this page shows the Series 153 filters as having a MERV rating 8

http://viskon-aire.com/series-153-1-polyester-dry-tackifier-2-ply-panel-filter.html

MERV 8 means a control efficiency of at least 90%. However, the requirement we will be imposing is a filter of at least 98% efficiency. This is a MERV rating of 13 or greater or an arrestance value from ASHRAE 52.1 of 98%. It may be that the filter you have meets the requirement as I don't think the website is specific necessarily to the 153-002. So, I still need a specification sheet for the filter showing a control efficiency of 98 percent or better. Or, I need a specification sheet for another model of filter that meets that requirement

Inspector Schantz also indicated that you said the additional information packet you sent included the MSDS for the putty. However, I am not able to identify which of the MSDS sheets provided are putty. The sheets I have are

AME 6000 T 25 resin

Aropol S 5606 T 32 B resin

Hi-Point 90 Red

Nord Composites Clear resin and casting resin

Armorflex Deep Red 963MK105 (gelcoat)

If you could look at these and give a summary as to which are the putty it would be very helpful

Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

19. ***E-mail from Oguz Aksan, October 15, 2010***

Re: NOC 10220 informaiton needed. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

You replied on 10/15/2010 3:46 PM.

From: Oguz Aksan [oaksan@aol.com] Sent: Fri 10/15/2010 3:20 PM

To: Brian Renninger

Cc:

Subject: Re: NOC 10220 informaiton needed.

Brian,

Thank you for your reply,

As per purr conversation.. The putty msds has been faxed to the number you gave me, please confirm you have received it. I have also the new filter specs for you..

They are

Viskon-aire

Filter name is 107x

Report date of jan 6. Test # t603 Indicates the filter efficiency is 98.75 % efficient.

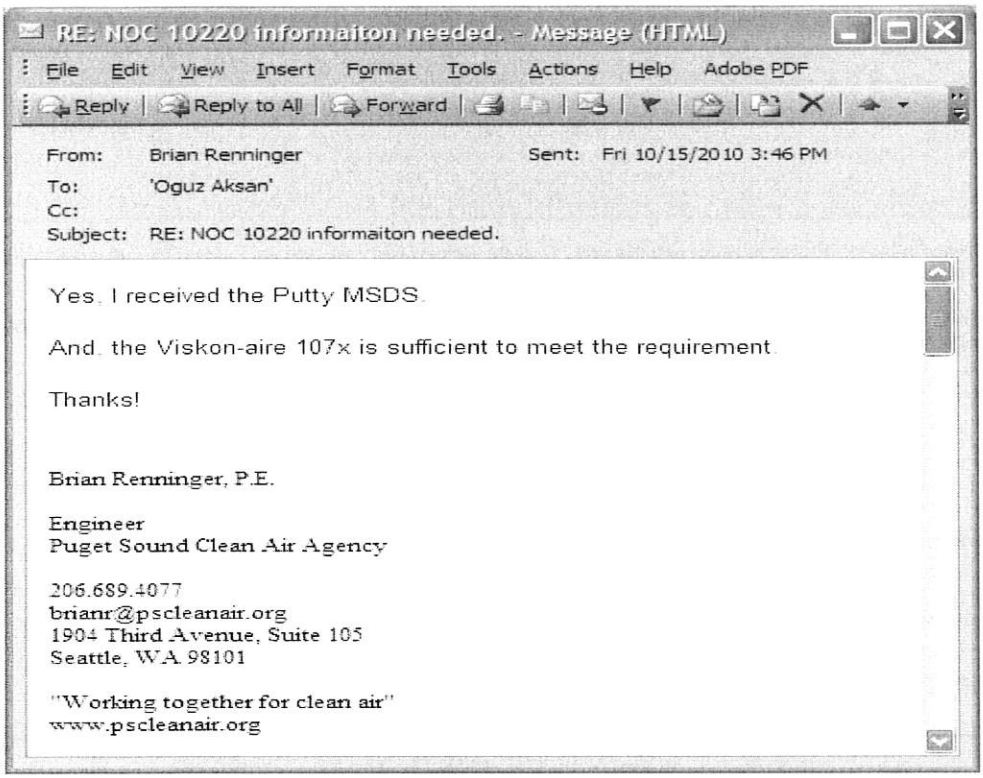
We will look for a pre filter set up in front of thesis filter to help increase the life of the filter.

Please let me know when you will be issuing the permit. And I mentioned it to John when he was here... please scan me the invoice regarding this permit so we can make. Payment as fast as we can to help expedite .. Everyone is anxious to get things rolling.

Thanks..

Sent from Oz Aksan

20. *E-mail to Oguz Aksan, October 15, 2010*



RE: NOC 10220 informaiton needed. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Fri 10/15/2010 3:46 PM
To: 'Oguz Aksan'
Cc:
Subject: RE: NOC 10220 informaiton needed.

Yes. I received the Putty MSDS.

And. the Viskon-aire 107x is sufficient to meet the requirement.

Thanks!

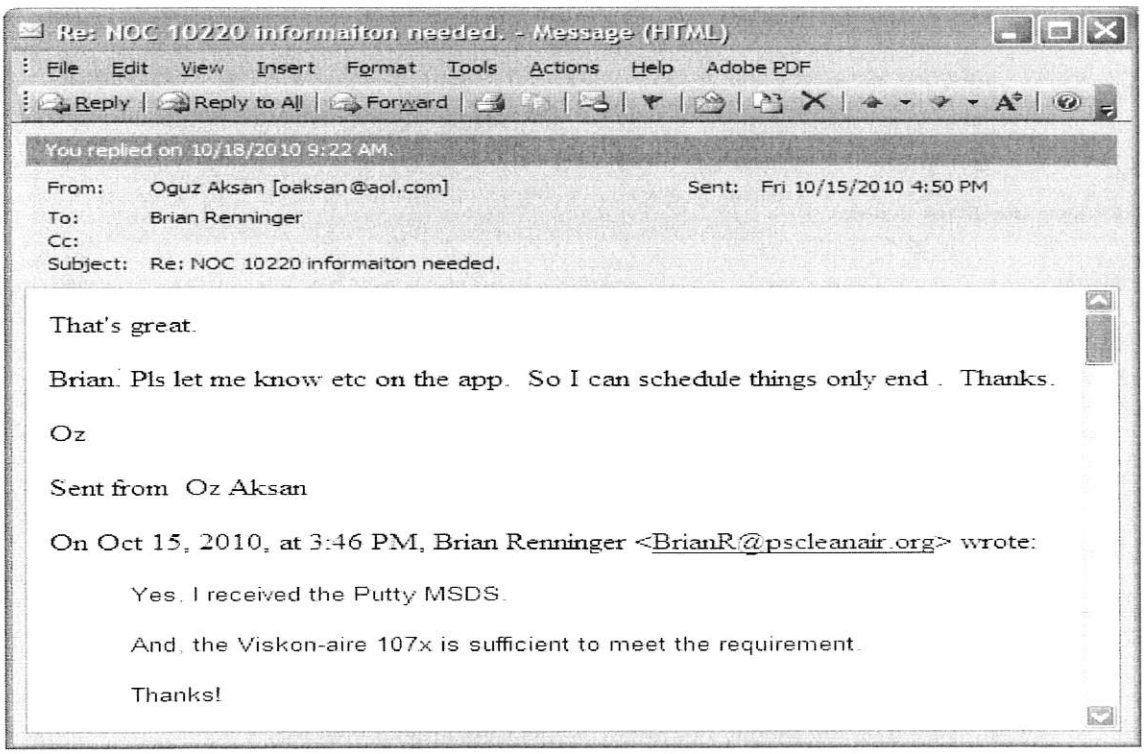
Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
briannr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

21. *E-mail from Oguz Aksan, October 15, 2010*



Re: NOC 10220 informaiton needed. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

You replied on 10/18/2010 9:22 AM.

From: Oguz Aksan [oaksan@aol.com] Sent: Fri 10/15/2010 4:50 PM
To: Brian Renninger
Cc:
Subject: Re: NOC 10220 informaiton needed.

That's great.

Brian. Pls let me know etc on the app. So I can schedule things only end . Thanks.

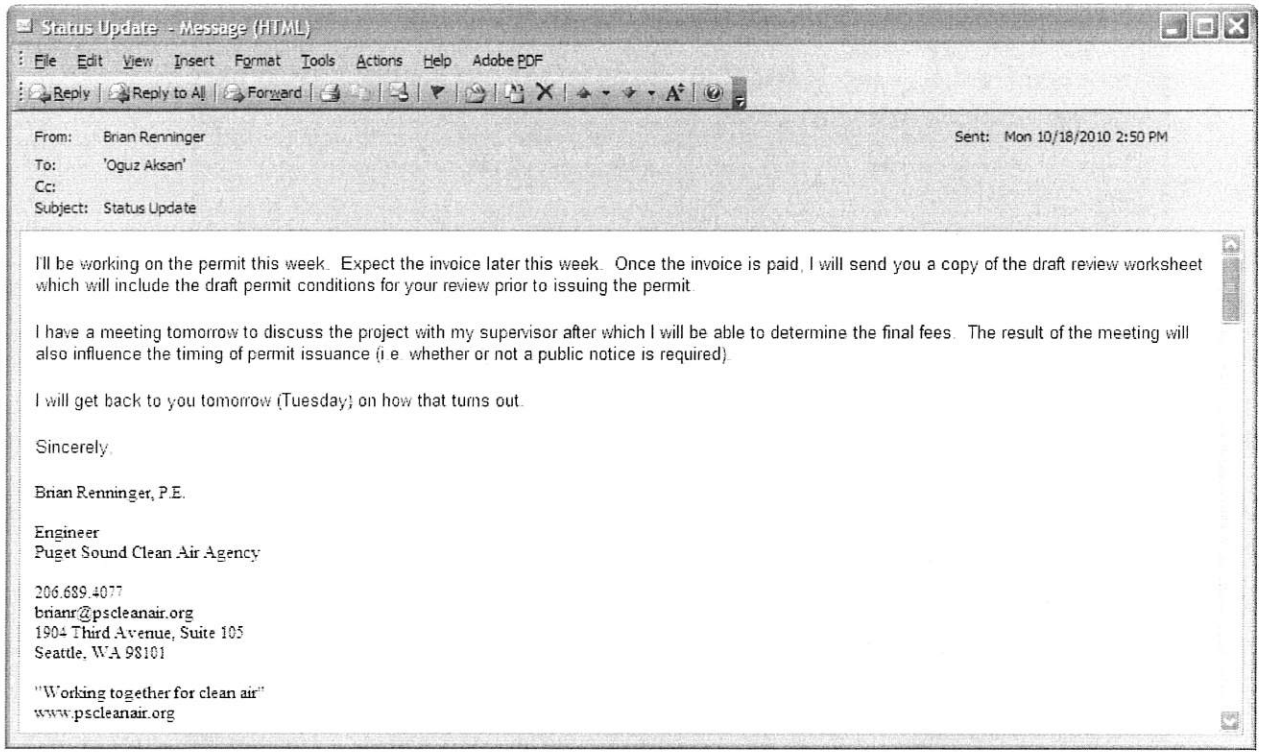
Oz

Sent from Oz Aksan

On Oct 15, 2010, at 3:46 PM, Brian Renninger <BrianR@pscleanair.org> wrote:

> Yes. I received the Putty MSDS.
>
> And. the Viskon-aire 107x is sufficient to meet the requirement.
>
> Thanks!

22. *E-mail to Oguz Aksan, October 18, 2010*



Status Update - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Mon 10/18/2010 2:50 PM
To: 'Oguz Aksan'
Cc:
Subject: Status Update

I'll be working on the permit this week. Expect the invoice later this week. Once the invoice is paid, I will send you a copy of the draft review worksheet which will include the draft permit conditions for your review prior to issuing the permit.

I have a meeting tomorrow to discuss the project with my supervisor after which I will be able to determine the final fees. The result of the meeting will also influence the timing of permit issuance (i.e. whether or not a public notice is required).

I will get back to you tomorrow (Tuesday) on how that turns out.

Sincerely,

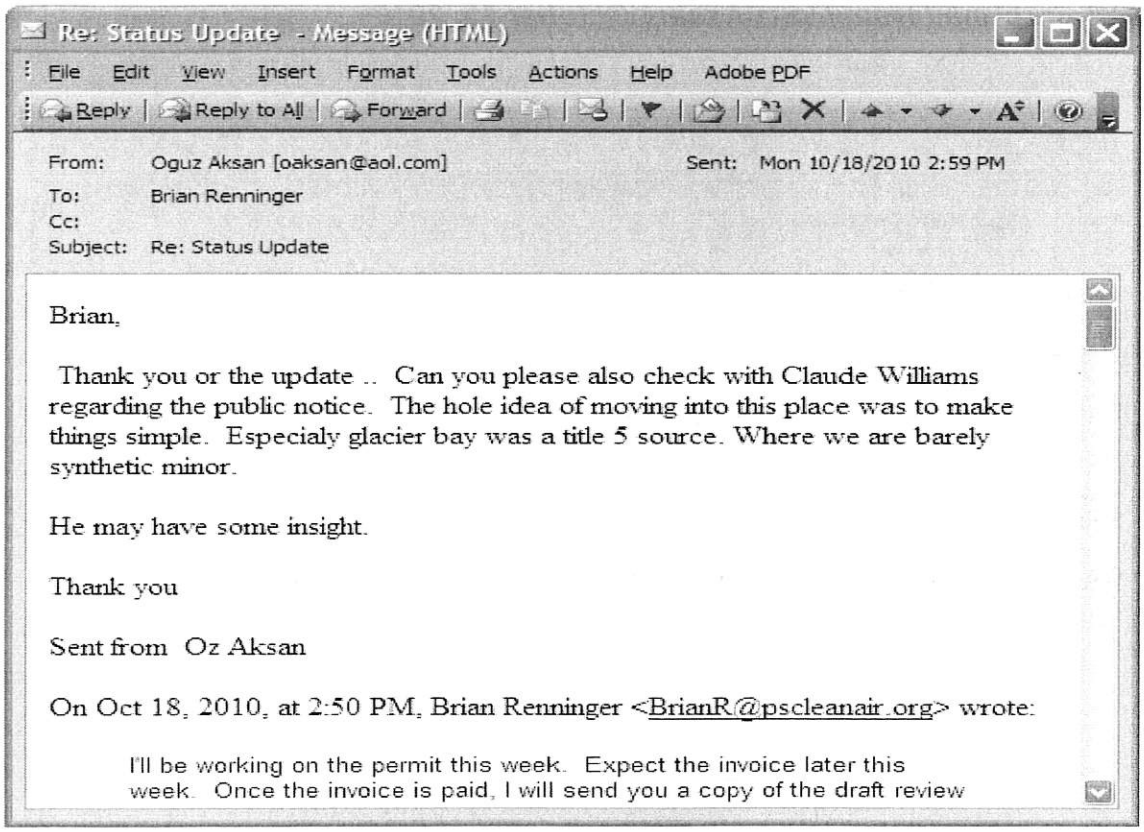
Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

23. *E-mail from Oguz Aksan, October 18, 2010*



Re: Status Update - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Oguz Aksan [oaksan@aol.com] Sent: Mon 10/18/2010 2:59 PM
To: Brian Renninger
Cc:
Subject: Re: Status Update

Brian,

Thank you or the update .. Can you please also check with Claude Williams regarding the public notice. The hole idea of moving into this place was to make things simple. Especialy glacier bay was a title 5 source. Where we are barely synthetic minor.

He may have some insight.

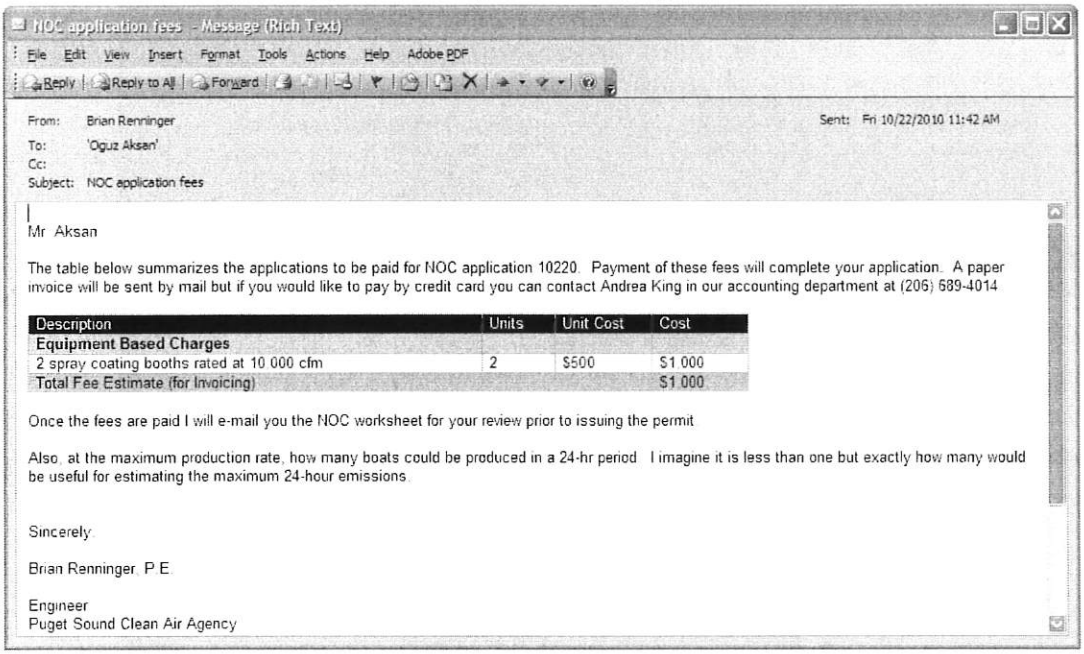
Thank you

Sent from Oz Aksan

On Oct 18, 2010, at 2:50 PM, Brian Renninger <BrianR@pscleanair.org> wrote:

> I'll be working on the permit this week. Expect the invoice later this week. Once the invoice is paid, I will send you a copy of the draft review

24. *E-mail to Oguz Aksan, October 22, 2010*



NOC application fees - Message (Rich Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Fri 10/22/2010 11:42 AM
To: 'Oguz Aksan'
Cc:
Subject: NOC application fees

Mr. Aksan

The table below summarizes the applications to be paid for NOC application 10220. Payment of these fees will complete your application. A paper invoice will be sent by mail but if you would like to pay by credit card you can contact Andrea King in our accounting department at (206) 689-4014

Description	Units	Unit Cost	Cost
Equipment Based Charges			
2 spray coating booths rated at 10 000 cfm	2	$500	$1 000
Total Fee Estimate (for Invoicing)			$1 000

Once the fees are paid I will e-mail you the NOC worksheet for your review prior to issuing the permit

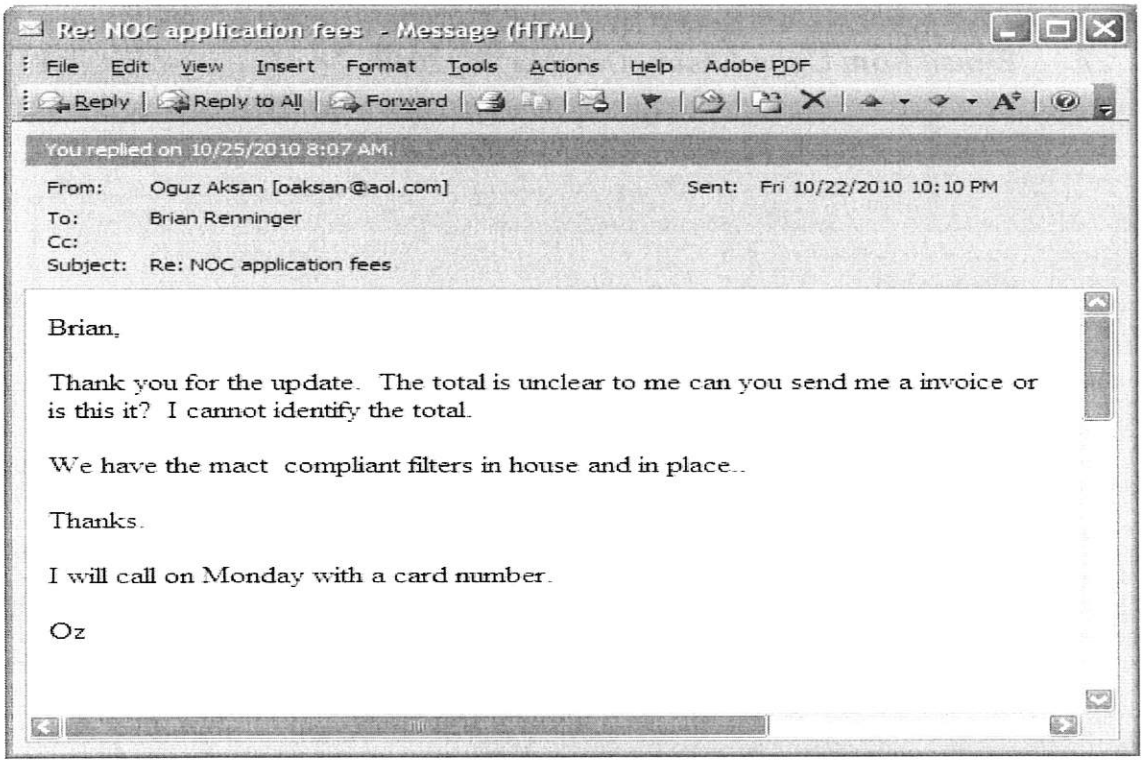
Also, at the maximum production rate, how many boats could be produced in a 24-hr period. I imagine it is less than one but exactly how many would be useful for estimating the maximum 24-hour emissions.

Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

25. *E-mail from Oguz Aksan, October 22, 2010*



Re: NOC application fees - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

You replied on 10/25/2010 8:07 AM.

From: Oguz Aksan [oaksan@aol.com] Sent: Fri 10/22/2010 10:10 PM
To: Brian Renninger
Cc:
Subject: Re: NOC application fees

Brian,

Thank you for the update. The total is unclear to me can you send me a invoice or is this it? I cannot identify the total.

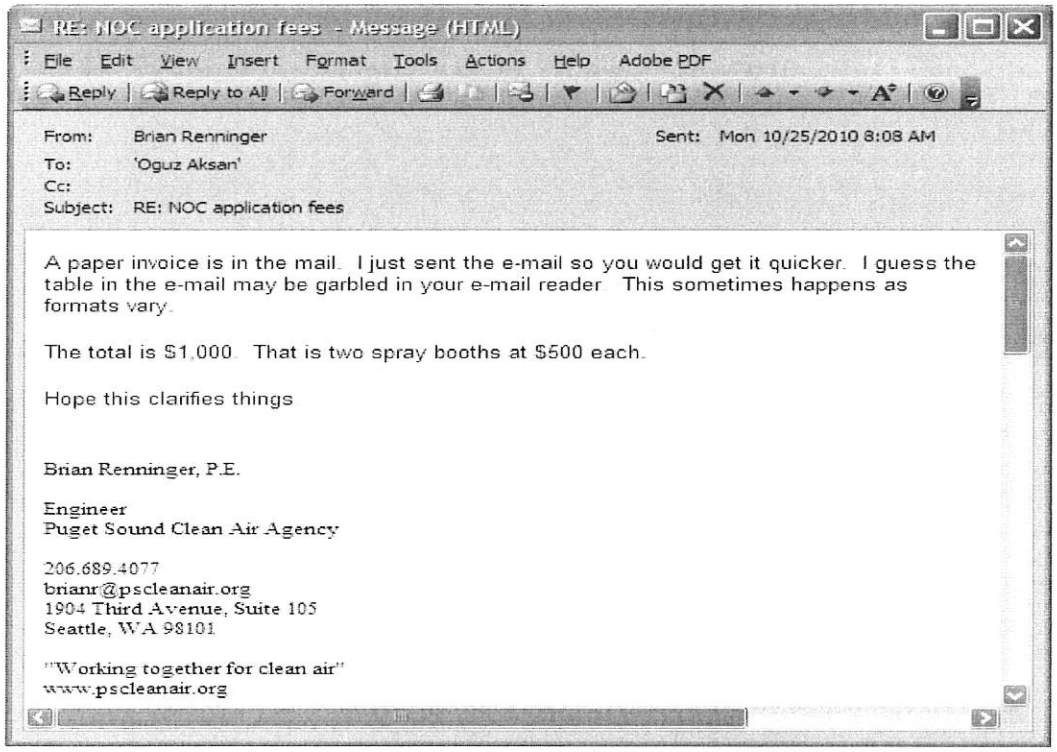
We have the mact compliant filters in house and in place..

Thanks.

I will call on Monday with a card number.

Oz

26. *E-mail to Oguz Aksan, October 25, 2010*



RE: NOC application fees - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Mon 10/25/2010 8:08 AM
To: 'Oguz Aksan'
Cc:
Subject: RE: NOC application fees

A paper invoice is in the mail. I just sent the e-mail so you would get it quicker. I guess the table in the e-mail may be garbled in your e-mail reader. This sometimes happens as formats vary.

The total is $1,000. That is two spray booths at $500 each.

Hope this clarifies things

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

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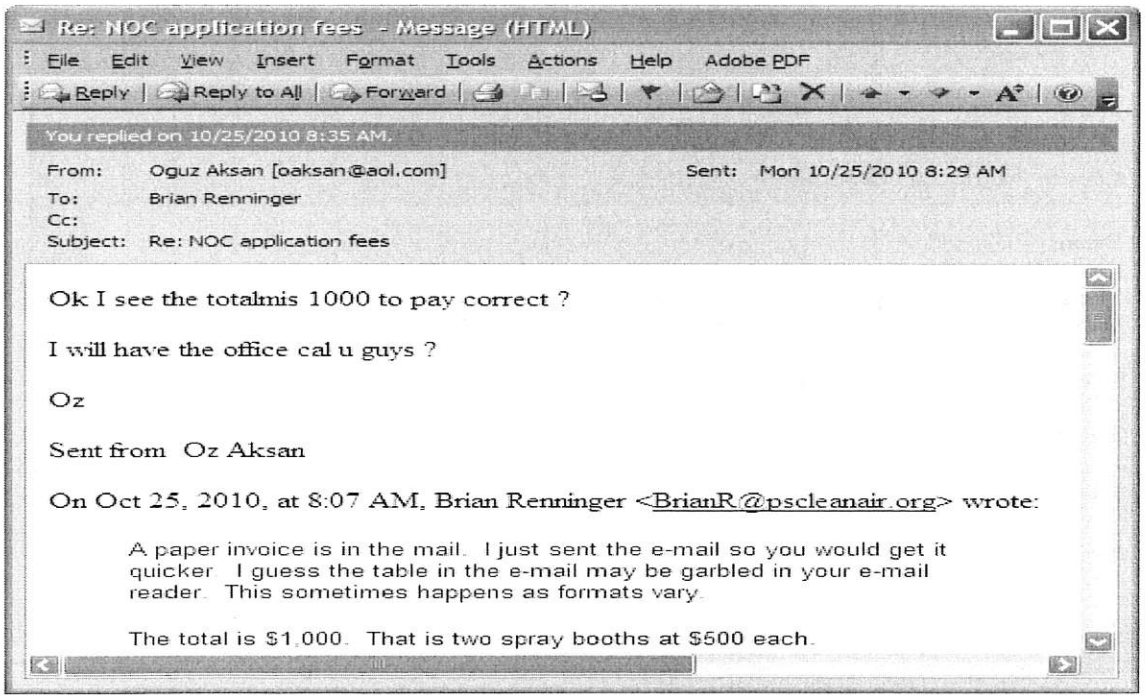
www.pscleanair.org

27. *E-mail from Oguz Aksan, October 25, 2010*



Re: NOC application fees - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

You replied on 10/25/2010 8:35 AM.

From: Oguz Aksan [oaksan@aol.com] Sent: Mon 10/25/2010 8:29 AM
To: Brian Renninger
Cc:
Subject: Re: NOC application fees

Ok I see the totalmis 1000 to pay correct ?

I will have the office cal u guys ?

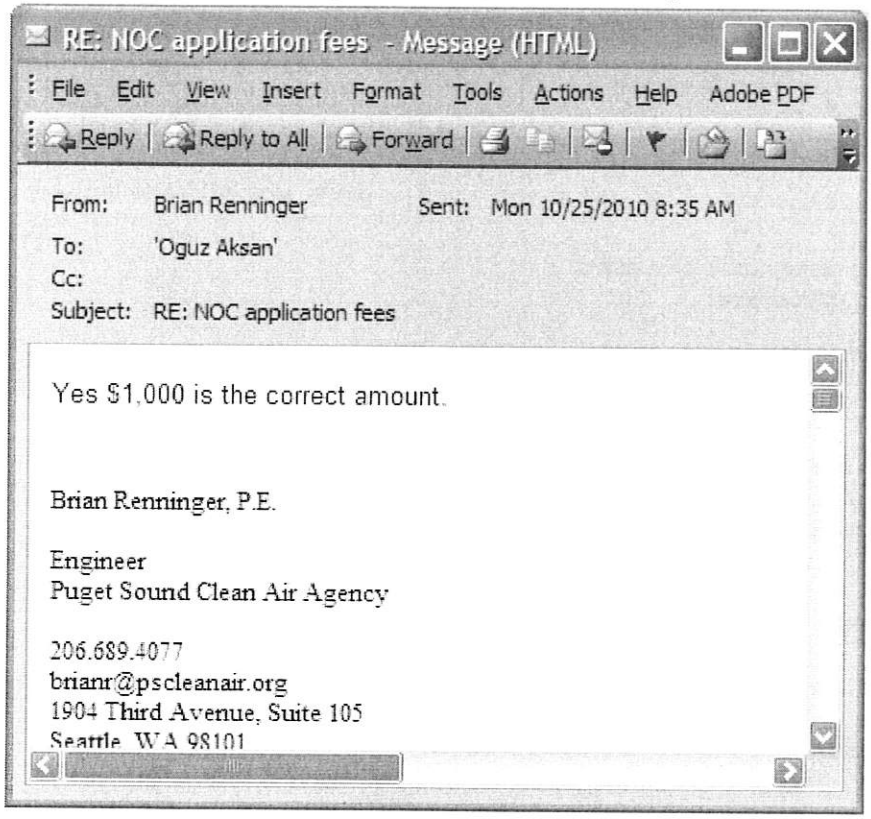
Oz

Sent from Oz Aksan

On Oct 25, 2010, at 8:07 AM, Brian Renninger <BrianR@pscleanair.org> wrote:

> A paper invoice is in the mail. I just sent the e-mail so you would get it quicker. I guess the table in the e-mail may be garbled in your e-mail reader. This sometimes happens as formats vary.
>
> The total is $1,000. That is two spray booths at $500 each.

28. ***E-mail to Oguz Aksan, October 25, 2010***



RE: NOC application fees - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Mon 10/25/2010 8:35 AM
To: 'Oguz Aksan'
Cc:
Subject: RE: NOC application fees

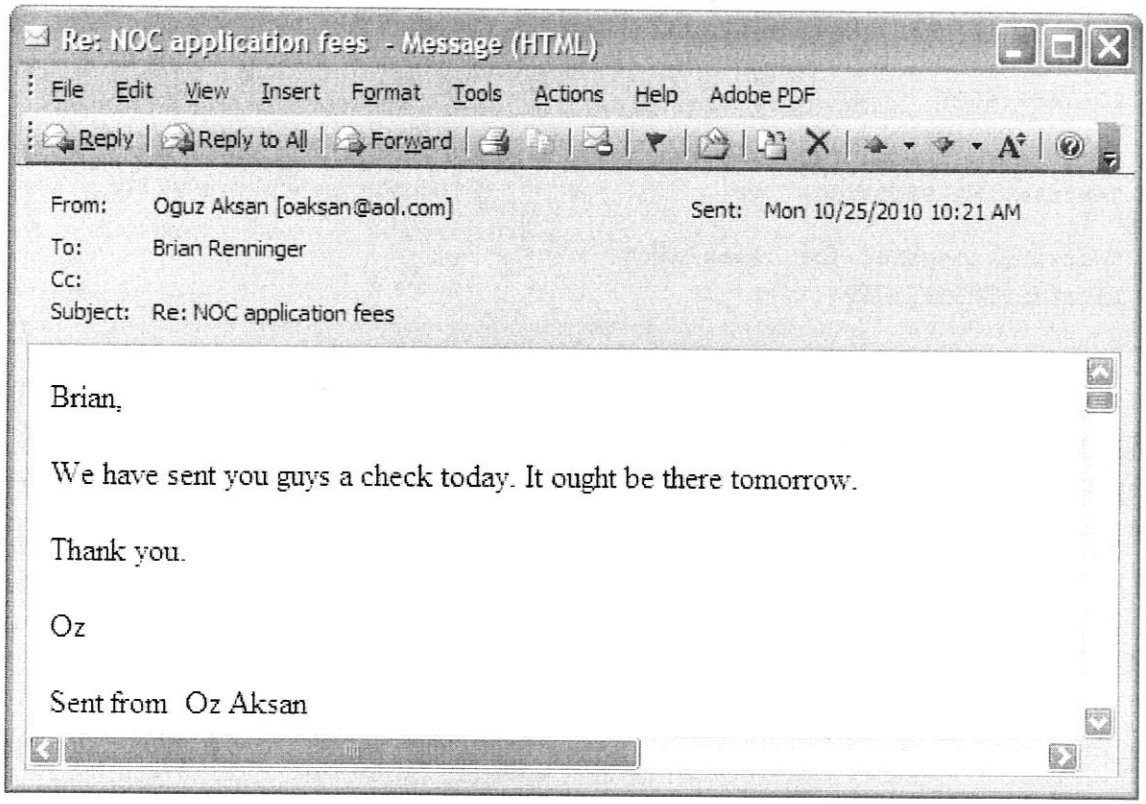
Yes $1,000 is the correct amount.

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
briannr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

29. ***E-mail from Oguz Aksan, October 25, 2010***



Re: NOC application fees - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Oguz Aksan [oaksan@aol.com] Sent: Mon 10/25/2010 10:21 AM
To: Brian Renninger
Cc:
Subject: Re: NOC application fees

Brian,

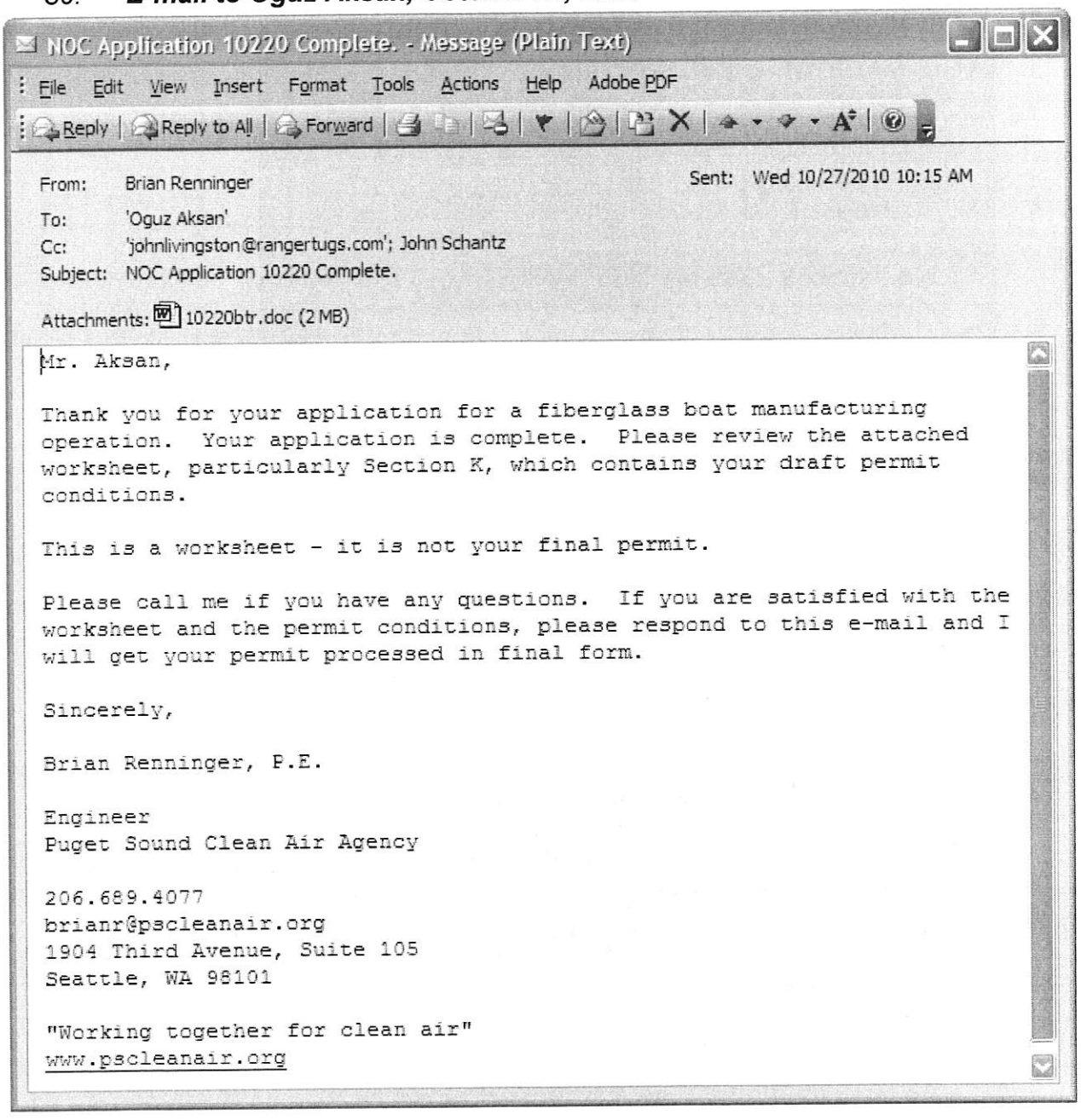
We have sent you guys a check today. It ought be there tomorrow.

Thank you.

Oz

Sent from Oz Aksan

30. *E-mail to Oguz Aksan, October 27, 2010*



NOC Application 10220 Complete. - Message (Plain Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger
Sent: Wed 10/27/2010 10:15 AM
To: 'Oguz Aksan'
Cc: 'johnlivingston@rangertugs.com'; John Schantz
Subject: NOC Application 10220 Complete.
Attachments: 10220btr.doc (2 MB)

Mr. Aksan,

Thank you for your application for a fiberglass boat manufacturing operation. Your application is complete. Please review the attached worksheet, particularly Section K, which contains your draft permit conditions.

This is a worksheet - it is not your final permit.

Please call me if you have any questions. If you are satisfied with the worksheet and the permit conditions, please respond to this e-mail and I will get your permit processed in final form.

Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

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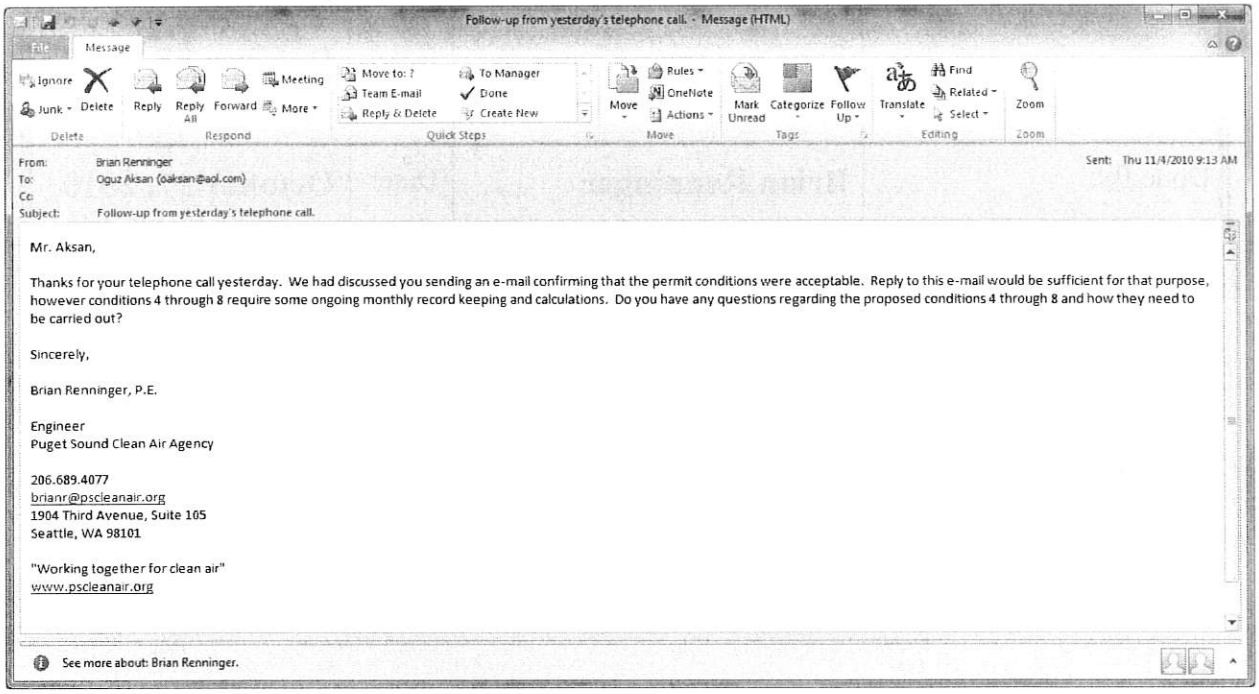
31. *Telephone Call from Oguz Aksan, November 3, 2010*

Mr. Aksan called to say that he had discussed the draft with Mr. John Livingston and that they had no comments and they are satisfied with the permit conditions. I asked that he send me an e-mail to that effect and that I would begin to prepare the final permit.

32. *E-mail to Oguz Aksan, November 4, 2010*



Follow-up from yesterday's telephone call. - Message (HTML)

File | Message

Ignore | Junk | Delete | Reply | Reply All | Forward | Meeting | More | Move to: ? | To Manager | Team E-mail | Reply & Delete | Done | Create New | Rules | OneNote | Actions | Move | Mark Unread | Categorize | Follow Up | Translate | Find | Related | Select | Zoom

Delete | Respond | Quick Steps | Move | Tags | Editing | Zoom

From: Brian Renninger
To: Oguz Aksan (oaksan@aol.com)
Cc:
Subject: Follow-up from yesterday's telephone call.
Sent: Thu 11/4/2010 9:13 AM

Mr. Aksan,

Thanks for your telephone call yesterday. We had discussed you sending an e-mail confirming that the permit conditions were acceptable. Reply to this e-mail would be sufficient for that purpose, however conditions 4 through 8 require some ongoing monthly record keeping and calculations. Do you have any questions regarding the proposed conditions 4 through 8 and how they need to be carried out?

Sincerely,

Brian Renninger, P.E.

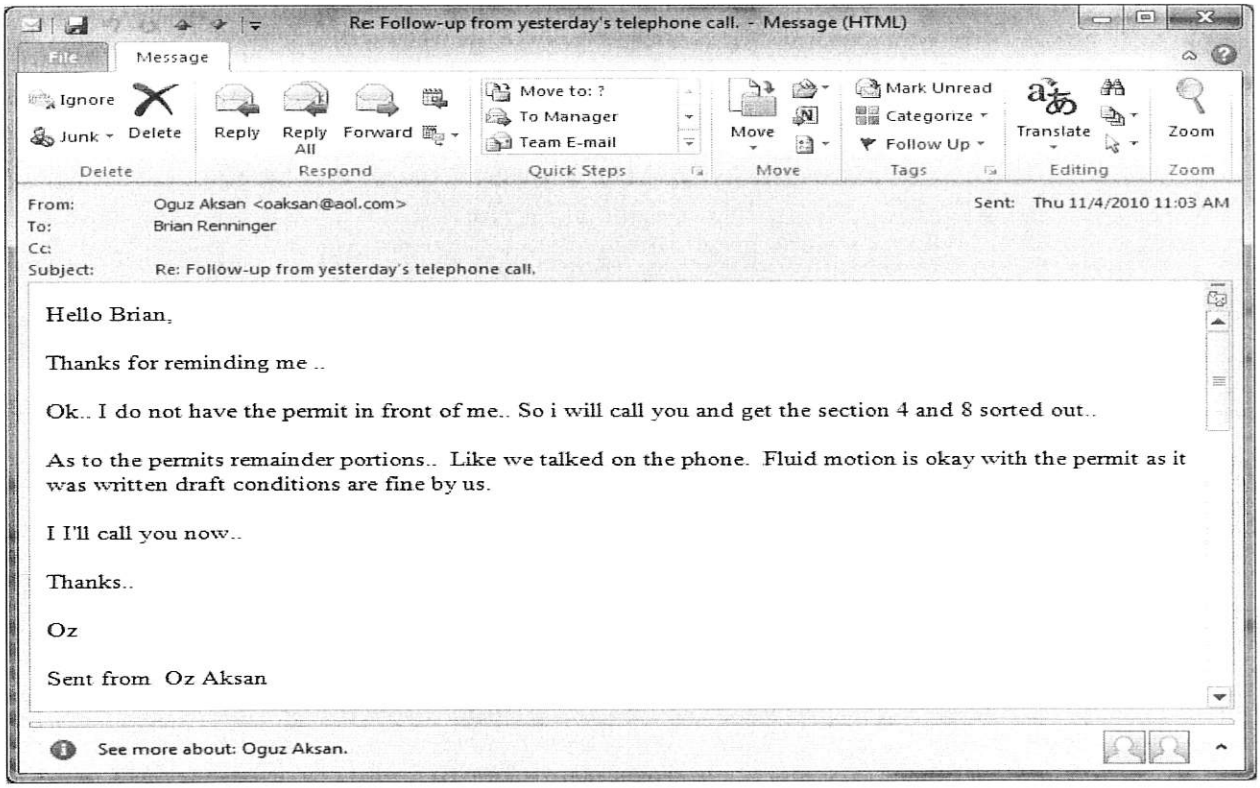
Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

See more about: Brian Renninger.

33. *E-mail from Oguz Aksan, November 4, 2010*



Re: Follow-up from yesterday's telephone call. - Message (HTML)

File | Message

Ignore | Junk | Delete | Reply | Reply All | Forward | Move to: ? | To Manager | Team E-mail | Move | Mark Unread | Categorize | Follow Up | Translate | Zoom

Delete | Respond | Quick Steps | Move | Tags | Editing | Zoom

From: Oguz Aksan <oaksan@aol.com>
To: Brian Renninger
Cc:
Subject: Re: Follow-up from yesterday's telephone call.
Sent: Thu 11/4/2010 11:03 AM

Hello Brian,

Thanks for reminding me ..

Ok.. I do not have the permit in front of me.. So i will call you and get the section 4 and 8 sorted out..

As to the permits remainder portions.. Like we talked on the phone. Fluid motion is okay with the permit as it was written draft conditions are fine by us.

I I'll call you now..

Thanks..

Oz

Sent from Oz Aksan

See more about: Oguz Aksan.

34. *Telephone call from Oguz Aksan, November 4, 2010*

Mr. Aksan called with some questions regarding conditions 4 through 8. I walked him through what was required and he said he understood the conditions.

Has the source seen this:	**Sent to Oguz Aksan & John Livingstone**	Date:	**October 27, 2010**
Done By:	**Brian Renninger**	Date:	**October 27, 2010**
Inspector Review:	**Sent to John Schantz**	Date:	**October 27, 2010**
Reviewed by: Supervising Engineer	**Agata McIntyre**	Date:	

FLUID MOTION LLC
OVERVIEW OF PROCESS

Fluid Motion LLC operates several fiberglass reinforced plastic boat manufacturing facility in Washington State.(SIC code 3732 / 336612) Fiberglass pleasure boats, from 23' to 28' can be manufactured at the Monroe WA location.

Lamination successive layers of gelcoat, vinylester resin, polyester resins and fiberglass inside open female molds traditionally makes fiberglass boats. Different molds are used to make decks, hulls, small parts and etc. The completed parts are the fastened together and other equipment, such as running gear and hardware are installed.

The various stages of construction are accomplished in four main areas: lamination, assembly, wood shop and upholstery. Air emission from the fiberglass boats in these department results from the evaporation of volatile organic compounds (VOC) and hazardous air pollutants (HAP) used as solvent in clean up processes and spray adhesive and as reactant emission from the lamination process. The actual construction of a fiberglass boat is the result of a cooperative effort between several different support areas.

1. MANUFACTURING PROCESS

Lamination:

- Fiberglass reinforced plastic (FRP) boats starts their existence in the lamination shop. It begins when the boat molds are cleaned, then given a coat of releasing wax. Next, they are sprayed with a pigmented polyester resin, called gelcoat. As with any polyester, when properly mixed with methyl ethyl ketone peroxide (MEKP) catalyst, the resulting chemical reaction turns the two liquids into a solid.

- After the gelcoat has had a change to cure, or solidify, a layer of vinylester resin, catalyst, and fiberglass chop is applied as a skin for secondary bond and as a barrier coat to prevent osmosis blistering below the water line.
- Next a mixture of polyester resin, catalyst and fiberglass reinforcing are applied over the skin coat, in many successive layers per engineering design.
- When this process is complete, the finished part is pulled out of the mold and taken into the grinding booth. This is a special room where all rough surface form the lamination process are smooth, window, doors hatches are cut out, and all the holes for assembly. The dust particulates are collected in a bag house with no discharge to the outside environment. Grinding dust is non-hazardous material and sent to the landfill.

Wood shop

- Raw wood stocks of plywood, teak and other hardwood are brought into the woodshop, where they are reworked for distribution to the lamination, assembly and upholstery shops.
- Plywood is cut into patterned shapes, screw and nailed into assembled units. Some of these assemblies are sent to the lamination department where they are laminated into the hulls or decks, other go to the upholstery shop where they are covered with foam and fabric to become finished pads bunks and cushions.
- Teak and other hardwood is use in cabinets and trims material, and is sent to assembly department for installation.

Upholstery:

- All upholstered seats, bunks, cushions and pads are manufactured on-site, Roll stock of vinyl , fabric and canvas top materials are cut into pattern pieces, and then sewn together to form the skins for the completed parts.
- These skins are fitted with appropriate fillers and attached to wood pieces or assemblies, supplied by the wood shop. The finished upholstered parts are sent to the assembly department for installation.
- Other upholstery parts manufactured for the boats are side panels, dash pads and curtains. For these parts, wood from the wood shop is

cut to the correct size and shape, and then covered with foam, fabric, vinyl or carpet. These are also sent to assembly for installation.

Assembly:

- Actual construction of our boats is accomplished in the assembly department. Supplied vendor items, subassemblies from other departments and raw bulk material are brought into this area where they are turned into a marketable, finished product.
- Fiberglass decks and hulls are moved into assembly from lamination. While they still separate units, they are fitted with carpeting engine, wire harness, steering controls, deck and hull fittings and any other parts or pieces that can be efficiently installed at this stage. The next step is to mate or gunwale the deck onto the hull. When complete, the rest of the assembly can be completed.

Testing and Loading

- Completed boats are function tested and are prepared for shipment. The boats are then lifted by overhead hoist and placed on trailers for transportation to our dealer network.

Reg	SourceName	SourceAddress	SourceCity	SourceZip
29390	Fluid Motion	17341 Tye St. SE	Monroe	98272

SourceCounty	MailAddress	MailCity	MailState	MailZip	Contact1Name
SNOHOMISH	25802 Pacific Hwy S	Kent	WA	98032	Dennis Pearson

Contact1Title	Contact1Phone	Contact1Email	Contact2Name	Contact2Title
Environmental Mana	(425) 212-8136	dennispearson@rang		

Contact2Phone	Contact2Email	NAICSCode	SIC_Code	Latitude	Longitude
		336612			8

OperationHoursPerDay	OperationDaysPerWeek	OperationWeeksPerYear	OperationStartTime
5	52	6:00:00 AM	25

Throughput%ForDecFeb	Throughput%ForMarMay	Throughput%ForJunAug	Throughput%ForSepNov
25	25	25	

Fluid Motion LLC

Monroe 2 Washington base on 28' and 24' boat

Product 28' cutwater

			Gallons	w/per/gal	# USED	% STYRENE	STYRENE USED	FACTOR	HAP EMITTED	% MMA	MMA USED	FACTOR	HAP EMITTED
GELCOAT													
	Gelcoat	LBS		10.5	341.25	0.3	102.4	0.108	36.9	0.03	10.24	0.03	0.307
RESIN													
	Polyester	LBS		9.2	1,277.85	0.34	434.5	0.037	47.3	0	-	0	0.000
	Vinyl ester	LBS		9.2	132.00	0.34	44.9	0.037	4.9				
PUTTY													
	5Gal Hi-Thix Radius	LBS		11	213.00	0.22	46.9	0.024	5.1				

								Total styrene per boat	94.1			Total MMA per boat	0.307		
							styrene	boat per year	75.0	Emission per year	7,059.9	boat per year	75	Emission per year	23.03
									Styrene	tons per year	3.53		MMA	tons per year	0.01

Product 24' cutwater

			Gallons	w/per/gal	# USED	% STYRENE	STYRENE USED	FACTOR	HAP EMITTED	% MMA	MMA USED	FACTOR	HAP EMITTED
GELCOAT													
	Gelcoat	LBS		10.5	311.75	0.29	90.4	0.108	33.7	0.04	12.47	0.03	0.374
RESIN													
	Polyester	LBS		9.2	1,156.15	0.34	393.1	0.037	42.8	0	-	0	0.000
	Vinyl ester	LBS		9.2	202.35	0.34	68.8	0.037	7.5				
PUTTY													
	5Gal Hi-Thix Radius	LBS		11	123.45	0.22	27.2	0.024	3.0				

								Total styrene per boat	86.9			Total MMA per boat	0.374					
							styrene	boat per year	125.0	Emission per year	10,862.0	boat per year	125	Emission per year	46.76			
									Styrene	tons per year	5.43		MMA	tons per year	0.02			
Wood Stain				Pounds use	%		used	emission factor	emiited									
Min waxs	Cobalt/naphthenate			2.5	0.001	0.0025		1	0.0025									
	Minerial Spirits			2.5	0.48	1.2		1	1.2									
								sub total	1.2025									
								boat per year	200	Emission per year	240.5							
Cleaning solvents				Pounds use	%		used	emission factor	emiited									
	Acetone			115	1	115		1	115	exempt								
								sub total	115	exempt								
								boat per year	200	Emission per year	23000	exempt						
Contact Adhesive				Pounds use	%		used	emission factor	emiited									
	Tolune	# 0.35	# 29	1.7	0.2	0.34		1	0.34									
	N-Hexane	# 0.52	# 44	1.7	0.3	0.51		1	0.51									
	Aliphatic Petroleun	# 0.26	# 22	1.7	0.15	0.255		1	0.255									
	Acetone	# 0.35	# 29	1.7	0.2	0.34		1	0.34	exempt								
								sub total	1.105									
								boat per year	200	Emission per year	221							

MONROE 2 EXHAUST FAN INSPECTION

Fan number

Manometer ranges

Date	Time	inspected by	Manometer zero fan off	Manometer level fan on	filter properly scured	CORRECTIVE ACTION
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
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21						
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23						
24						
25						
26						
27						
28						
29						
30						
31						

Monroe 2

17341 Tye St. SE

Monroe WA 98272

Insignificant Emission Units

- Wood spraying WAC 173-401-530(4d)
    - Insignificant emission thresholds. An emission unit or activity shall be considered insignificant if it qualifies under subsection (1)(b), (c) or (d) of this section, or if its actual emissions, based on methods approved by the permitting authority, are below the practical quantification limit (PQL), or are less than or equal to all of the following threshold levels: (d) 2 tons per year of volatile organic compounds (VOC);
- Wax application on molds WAC173-401-532 (32)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. (32) Wax application.

- Office activities WAC 173-401-532 (35)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. (49) Office activities.

- Portable drums and totes WAC 173-401-532 (42)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. (42) Portable drums and totes.

- Cleaning and sweeping of paved surfaces WAC 173-401-532 (44)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. (35) Cleaning and sweeping of streets and paved surfaces.

- Maintenance and plant upkeep WAC 173-401-532 (33)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. (33) Plant upkeep including routine housekeeping, preparation

for and painting of structures or equipment, retarring roofs, applying insulation to buildings in accordance with applicable environmental and health and safety requirements and paving or stripping parking lots.

- Flares used to indicate danger/help WAC173-401-532 (44)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. (44) Flares used to indicate danger to the public.

- Wood sanding and cutting WAC173-401-532 (55)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. 55) Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planning, buffing, shot blasting, shot peening, sintering or polishing: Ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock or wood provided that:

(a) Activity is performed indoors;
(b) Particulate emission control in the immediate vicinity of the activity;
© Exhaust from the particulate control is within the building housing the activity;
(d) No fugitive particulate emissions enter the environment.

- FRP grinding and cutting WAC173-532 (55)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. 55) Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planning, buffing, shot blasting, shot peening, sintering or polishing: Ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock or wood provided that:

(A) Activity is performed indoors;
(B) Particulate emission control in the immediate vicinity of the activity;
(C) Exhaust from the particulate control is within the building housing the activity;

- Internal combustion engines function testing WAC 173-401-532 (10)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. (10) Internal combustion engines for propelling or powering a vehicle.

- Fuel and exhaust emissions from vehicles in parking lots WAC173-401-532 (54)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. (54) Fuel and exhaust emissions from vehicles in parking lots.

- Air compressors, pneumatically operation equipment, systems and hand tools. WAC 173-401-532 (88)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. (88) Air compressors, pneumatically operated equipment, systems and hand tools.

- Vacuum systems exhaust WAC173-401-532 (108)
    - This section contains lists of units and activities that are categorically exempt from this chapter. The activities listed in this section may be omitted from the permit application. (108) Vacuum systems exhausts.

- Welding WAC 173-401-533 (i)
    - This section contains lists of units or activities that are exempt from this chapter on the basis of size or production rate. Units and activities listed in this section must be listed on the permit application. (i) Welding using not more than one ton per day of welding rod.

- Use of barbecues for employee dinners WAC 173-401-532 (11)
    - This section contains lists of units or activities that are exempt from this chapter on the basis of size or production rate. Units and activities listed in this section must be listed on the permit application. (11) Recreational fireplaces including the use of barbecues, campfires and ceremonial fires.

- Air heating and cooling units for the office WAC 173-401-532 (46)
    - This section contains lists of units or activities that are exempt from this chapter on the basis of size or production rate. Units and activities listed in this section must be listed on the permit application. (46) Comfort air conditioning or air cooling systems, not used to remove air contaminants from specific equipment.

- Test one for one drive

August 13, 2018

To; Brain Renninger
PSCAA
1904 3rd Ave. Ste. 105
Seattle WA 98101-3317

From; Dennis Pearson (consultant for Fluid Motion LLC)
Nautical Watch
P.O. Box 191
North Lakewood, WA 98259

Subj; Increase HAP emission at our Monroe 2 Facility

Hi Brain,

We would like to increase our HAP limits from 5 tons to 9.9 tons at our Fluid Motion LLC facility at 17341 Tye St SE Monroe WA 98272, because of increase of sales and different models mixes. The total VOC can stay the same at 25 tons

- Our air registration number for this address is 29390
- Please see attach NOC for spray operation
- Please attach emission per boat models and size
- Please see attach SDS for Production resin, Gelcoat, Putty, and MEKP
- Please see attach process overview
- Please see attach Flow diagram
- Please see attach insignificant emission units
- Please see attach BACT worksheet for our Arlington facility done in 04-01-2016, sense there as been no new type of add-on technology I believe the report is still correct with a 3% inflation. Because we use the same equipment and processes at both location
- SEPA review was done on the existing equipment June 30, 1999 by the City of Monroe order of approval 7770
- Spray Adhesive for fabric adhesive be limit to 5 percent or less HAP.

A check of $1150.00 will be sent to PSCAA with a copy of the NOC.

Please give me a call at 425-212-8136 or e-mail me at dennispearson@rangertugs.com

Thanks
Dennis Pearson
Consultant for Fluid Motion LLC
Nautical Watch
P.O. Box 191
North Lakewood, WA 98259
425-212-8136

nauti@frontier.com

pscleanair.org
Puget Sound Clean Air Agency

Puget Sound Clean Air Agency
1904 Third Avenue, Suite 105 | Seattle, WA 98101-3317
Phone 206-343-8800 | 206-343-7522 Fax

Notice of Construction & Application for Approval

Your application will not be processed unless the filing fee of $1,150 is included with the application or until you pay by credit card. To pay by credit card, check here ☐ and an accounting technician will contact you.
A completed Environmental Checklist is also required. Additional fees may apply after the application is reviewed.

SPRAY COATING OPERATIONS — FORM SCO

8/29/18

AGENCY USE ONLY	Date	11660	Reg No.	29390	NOC No.	

Section I – Facility Information

My business is: (check one)
- ☐ New
- ☒ Existing

This application is for activities or equipment that are: (Check all that apply)
- ☐ New
- ☒ Existing
- ☐ Being changed
- ☐ Relocating

Applicant Name & Mailing Address
FLUID MOTION LLC
17300 TYE ST. SE
MONROE WA. 98272
Phone 425-212-8136
Fax
Email DENNISPEARSON@RANGERTUGS.com

Company or Owner Name & Mailing Address (if different)

Installation Address (include city & zip code)
FLUID MOTION LLC
17341 TYE ST. SE
MONROE WA 98272

Nature of business: FRP BOAT MANUFACTURING

Type of products being coated:
a. ☐ Aerospace b. ☐ Wood furniture c. ☐ Motor vehicles
d. ☒ Other, describe: BOAT MOLDS

Days of operation (circle)
S (M) (T) (W) (TH) (F) S

Hours of spray coating per day
6:00 AM TO 4:00 PM

Has the local zoning authority and the local Fire district approved this operation at this installation address? ☒ Yes ☐ No

List zoning authority: CITY OF MONROE Contact Phone #:

List Fire District: MONROE FIRE DEPARTMENT Contact Phone #:

Section II - Equipment Information

For any other process equipment being installed, i.e. abrasive blasting, sanding, or dust collectors, please attach the General Information - Form P.

1. Type of spray coating area:	No. of units:	Volume of enclosure (cf)	Exhaust rate (cfm)	Manufacturer make and model No.
a. ☒ Spray booth / room	2		10,000	
b. ☐ Outside spray area				**Identify controls for this option, please attach with Form SCO**

c. ☐ Prep area: Will there be spray coating operation at the prep area? ☐ Yes ☐ No
d. ☐ Other (explain):

*Attach a technical specification sheet for the equipment proposed for installation.

Section II - Equipment Information (continued)

2. Exhaust system overspray control:
   a. ☒ Dry filter system: Make and Model No. filters: WALL PANEL FILTER
   Manometer or differential pressure gauge Installed: ☒ Yes ☐ No
   Pressure drop in filters: _____ inches of water Filter Removal Efficiency, %: 95% 7-10 MICRONS
   b. ☐ Water wash system: Flow meter installed: ☐ Yes ☐ No Water flow rate: _____ feet per minute

3. Exhaust stack configuration
   Enclosure exhaust must be discharged vertically without obstruction (check appropriate method below):
   a. ☐ Automatic butterfly damper b. ☒ Open exhaust, no rain cap obstructing discharge
   c. ☐ Other, explain & attach a schematic/drawing: _____

4. Exhaust stack parameters (Leave blank for non-ventilated spray areas):
   Stack diameter: 30" inches, Stack height above ground: 30' feet
   Height of highest point of the roof: 23' feet Coordinates of stack location (direction & distance from SW corner of building): _____

5. Building Dimensions of project location:
   Building Height 20' ft Building Width _____ ft Building Length _____ ft

6. Type of spray equipment:
   a. ☐ Electrostatic b. ☐ High volume low pressure c. ☐ Low volume low pressure
   d. ☒ Air assisted airless e. ☐ Conventional air spray f. ☐ Airless
   g. ☒ Other (Make & Model No.): NON-ATOMIZED

7. Gun Cleaning Method:
   a. ☐ Enclosed Gun Cleaning System b. ☒ Manual cleaning - solvents returned to closed containers after use
   c. ☐ Other (explain): _____

Section III – Coating and Solvent Usage Report

List all coatings and solvents to be used in spray coating area(s) contained in this application in order of highest to lowest usage:

*Provide MSDS for each

Coating/Solvent name, manufacturer, and product ID #	Estimated No. of gallons used per year:	Volatile organic compounds (VOC) content in lbs/gallon or grams/liter:
a. SEE ATTACH SPREED SHEET		
b.		
c.		
d.		
e.		
f.		
g.		

*** Please estimate the total usage of coatings and solvents for the proposed project**

*** If more coatings or solvents are used, attach an additional sheet with this form**

Section IV – Application Certification Statement

I, the undersigned, do hereby certify that the information contained in this application and the accompanying forms, plans, and supplemental data described herein are, to the best of my knowledge, accurate and complete.

Signature: _____ Date: 8-13-16

Type or print name: DENNIS PEARSON Title: ENVIRO. CONSULTANT

pscleanair.org
Puget Sound Clean Air Agency

Puget Sound Clean Air Agency
Notice of Construction Worksheet

NOC Number: **10220**	Reg. No. **29390**	Source Name: **Fluid Motion**
Received Fee: **8/27/10**	Due Date: **9/27/10**	Source Location **17341 Tye St SE, Monroe, WA 98272**
Engineer **B. Renninger**	Inspector **J. Schantz**	Compliance Issues: **Yes o** **No o**

A. Project Description

1. *Description for Order of Approval*

Two dry filter system spray coating booth rated at 10,000 cfm each for a fiberglass boat building operation.

2. *Detailed Description*

This project is to start a fiberglass boat building operation. Proposed estimated operation is the construction of 60 boats per year. The facility was previously constructed and used as a boat building operation with similar types of resins, gelcoats, and types of emissions. NOC 7770 was issued June 30, 1999 to Glacier Bay Catamarans. Emissions from the facility for the year 2000 from Glacier Bay Catamarans were 17 tons of styrene. Glacier Bay Catamarans was a major source of hazardous air pollutants (HAPs) while the current sources level of operation would not make the source a major source of HAPs.

B. Fees

Filing Fee Paid $1,000 8/27/10

Table 1 Fee calculation

Description	Units	Unit Cost	Cost
Equipment Based Charges			
2 spray coating booths rated at 10,000 cfm	2	$500	$1,000
Total Fee Estimate (for Invoicing)			$1,000

Invoiced 10/21/2010. Paid $1,000 10/27/2010.

C. SEPA Review

The agency issued a Determination of Non-Significance (DNS) for these two filter banks on June 30, 1999. Review of the analysis conducted at the time of the DNS shows that the proposed operation uses materials functionally equivalent as that reviewed in 1999 for NOC 770. This project falls within the scope of previous reviews and the SEPA requirement is satisfied by the agency DNS issued June 30, 1999.

I contacted the City of Monroe on September 30, 2010 inquiring if they have any SEPA concerns regarding the project. Judy Gribble of the City of Monroe contacted me on October 5, 2010 indicating that they have no SEPA concerns but that operation and fire permit may be needed. Therefore I recommended proceeding with this Order of Approval with the SEPA requirement satisfied by the agency DNS issued June 30, 1999 for Order of Approval 7770.

7770-dns.pdf

D. Database Information (Required)

BE Code	55	Code Description	Spray Booth
Year installed	Units installed	Rated capacity	Units of measure
1999	2	10,000	CFM
Comments (Make, model, etc.)		Wall panel filters.	

E. Emission Estimate

The facility is expected to operate from 6:00am to 3:30pm five days per week. Spray coating is expected to occur 2-6 hours per day. Annual production is expected to be 60 boats per year. Table 2 shows the amount of gelcoat, resin, and putty expected to be used per boat manufactured. Table 3 summarizes the estimated actual emissions for the facility producing 60 boats per year. Hazardous Air Pollutant (HAP) emissions include styrene, methyl methacrylate (MMA), and cobalt compounds. Styrene and MMA are also Volatile Organic Compounds (VOCs).

Table 2 – Material Use Per Boat Produced

Compound	*Mass per Boat (lb)*
Gelcoat	535
Resin	1,750
Putty	240

1. *Estimated ACTUAL emissions*

Table 3 – Estimated Actual Emissions

Gal.	Density (lb/gal)	Use (lb)	% Styrene	Styrene Emission Factor (lb/ton)	Styrene Emitted (lb)	% MMA	MMA Emission Factor (lb/ton)	MMA Emitted (lb)	Solids (lb/gal)	% Cobalt Compounds	Cobalt Compounds Emitted (lb)	Emitted PM (lb)
Gelcoat												
3,172	10.12	32,100	25.6%	167	2,675.5	5.1%	75	1,203.8	6.8	13.5%	0.72	21.7
Resin												
11,602	9.05	105,000	34.2%	97	5,074.1	0%	0	0.0	6.0	0.2%	0.2	69.1
Putty												
1,214	11.86	14,400	23%	57.96	417.3	0%	0	0.0	9.0	0	0.00	0.0

Total styrene (lb)	8,167.0	**Total MMA (lb)**	1203.8	**Total Cobalt Compounds (lb)**	0.9	**Total PM (lb)**	90.8
Total HAP (tpy)	4.7					**Total PM (tpy)**	0.05

Notes:

1. Emissions Factors from *Unified Emission Factors for Open Molding of Composites*, July 23, 2001.
2. Gelcoat emission factor for Controlled Spray Application.
3. Resin emission factor for Mechanical Atomized.
4. Putty emission factor for manual.
5. Particulate filter effectiveness assumed the permit limit of 98%.
6. Transfer efficiency is assumed to be 95%.
7. Capture efficiency of hoods assumed to 100%.
8. Est. Boats per Year: 60.
9. The gelcoat cobalt is is a mixture of cobalt neodecanoate with a molecular weight of 401.44 and cobalt 2-ethylhexanoate with a molecular weight of 345.42. Thus the elemental cobalt emissions for gelcoat have been adjusted by the proportion of each compound, a proportion of 0.165.

2. *POTENTIAL to emit*

Potential to emit is the same as the estimated actual given the production restrictions.

A.) PRODUCTION RESTRICTIONS

Yes. The facility will have an annual styrene emission limit set such that the facility is operated according to the plans and specifications set out in the application (see Section G). This, in effect, will limit the facility to production of approximately 60 boats per year.

3. *Facility wide Emissions*

A.) REPORTING SOURCE

Yes. Facility will likely have actual emissions of greater than 2.5 tons per year of a single HAP. If so, then reporting of the emissions is required by Regulation I, Section 5.05(b).

B.) SYNTHETIC MINOR

No. Given the BACT (see Section G) related emission limitations facility is a true minor source without an applicant requested specific synthetic minor limit.

C.) OPERATING PERMIT

No.

D.) GREENHOUSE GAS EMISSIONS

Facility emits no direct greenhouse gases.

F. Applicable Regulations

1. *PUGET SOUND CLEAN AIR AGENCY*

Regulation I:

Section 5.05(b) requires annual emission reporting.

Section 5.05(c) requires an operation and maintenance plan be developed and implemented;

Section 9.03(a) limits visible emissions to 20 percent opacity.

Section 9.09 limits particulate emissions from a manufacturing process to 0.05 gr/dscf.

Section 9.11 prohibits emissions (e.g., odors, fallout) in sufficient quantities and duration as is likely to cause a nuisance;

Section 9.15 requires that reasonable precautions be used to control visible dust emissions;

Section 9.16 requires the use of a spray booth with an unobstructed vertical stack; and

Section 9.20 requires the spray booth to be maintained in good working order.

Regulation II:

SECTION 3.08 POLYESTER, VINYLESTER, GELCOAT, AND RESIN OPERATIONS Adopted 06/13/91 (700)
Revised 12/09/93 (769)

(a) This section shall apply to manufacturing operations involving the use of polyester, vinylester, gelcoat, or resin in which the styrene monomer is a reactive monomer for the resin.

(b) It shall be unlawful for any person to cause or allow the application of polyester resin, vinylester resin, gelcoat, or any other resin unless the operation is conducted inside an enclosed area that is registered with the Agency. The exhaust from the operation shall be vented to the atmosphere through a vertical stack. For spray-coating applications of polyester resin, vinylester resin, gelcoat, or any other resin, the enclosed area shall incorporate a dry filter to control the overspray.

(c) It shall be unlawful for any person to use a chopper gun or spray gun to apply polyester resin, vinylester resin, gelcoat, or any other resin, unless the coating is applied by the use of one of the following methods:

(1) High volume, low pressure (0.1 to 10 psig air pressure for atomization) spray equipment,

(2) Electrostatic spray equipment,

(3) Airless spray equipment, or

(4) Air-assisted airless spray equipment.

(d) The provisions of Section 3.08(c) shall not apply to touchup and repair using a hand-held, air atomized spray gun that has a container for resin as part of the gun.

(e) It shall be unlawful for any person to use any VOC-containing material for the cleanup of spray equipment, including resin lines, unless equipment for collecting the VOC-containing material and minimizing the evaporation to the atmosphere is employed. All VOC-containing materials that are flushed through the spray equipment or lines during cleanup shall be collected in a closed container.

(f) It shall be unlawful for any person to use open containers for the storage or disposal of VOC-containing materials. Such containers and tanks shall be kept closed except when being cleaned or when materials are being added, mixed, or removed. Closed containers for solvent rag or paper disposal are required. Empty containers as defined in WAC 173-303-160 are exempt.

2. ***State***

WAC 173-400-040 General Standards for maximum emissions contains similar nuisance requirements.

RCW 70.94.152(7) contains a similar requirement to operate the booth in good working order.

3. *Federal*

40 CFR 63 Subpart VVVV – Boat Building NESHAP; and 40 CFR Subpart WWWW – Plastics Composites NESHAP, both do not apply to this minor source. However, the organic HAP limits of material in VVVV have been included as tBACT (see Section G).

40 CFR 63 Subpart HHHHHH (paint stripping and surface coating NESHAP) will not apply to this equipment because of condition 3 below which prohibits emissions of specific metallic HAPs and the use of methylene chloride for stripping. The paint filter efficiency requirements of Subpart HHHHHH have been included as BACT and tBACT (see Section G).

4. *Registration Applicability/Fee Classification*

Registration Program Classification – Prior to NOC Application		
Regulation/Citation	**Description**	**Comment**
NA	NA	NA
Fee Citations	**Description**	**Fee Amount**
NA	NA	NA
Total Fee Invoiced		
Changes to Registration Program Status – Following NOC Approval		
Regulation/Citation	**Description**	**Comment**
Reg. I, 5.03(a)(3)(A)	Emission of single HAP >= 2.5 TPY	
Reg. I, 5.03(a)(4)(L)	Reg II, Section 3.08 sources	
Reg. I, 5.03(a)(6)(F)	Mat or Panel filters >= 2,000 cfm	
Fee Citations	**Description**	**Fee Amount**
Reg. I, 5.07(c)	Base registration fee	$1,000
Reg. I, 5.07(c)(3)	Emission fees	$50/ton HAP+$50/ton VOC
Estimated Future Fee Projected		***$1,000+emission fees***

G. Technology Review BACT, RACT, LAER

1. *GENERIC BACT NO*

2. *Similar to: NOC 9923, 7770*

3. *Case-By-Case BACT*

The facility is not a major source of HAPs at the levels of operation requested in the permit. The same equipment and industry at the site (as Glacier Bay Catamarans) did emit major amounts of styrene. Thus, the facility, if not limited, has the potential to emit major amounts of HAPs. The primary emission from the proposed facility is styrene (a HAP, a toxic air pollutant, and a Volatile Organic Compound (VOC)). Secondary HAP and toxic emissions are methyl methacrylate (MMA) and cobalt compounds. Secondary criteria pollutants are particulate matter (PM).

New sources are required to employ both Best Available Control Technology (BACT) for criteria pollutants and for toxic air pollutants (tBACT) per WAC 173-400-113(2) and WAC 173-460-040(3)(a). Typically, for minor sources for which a major source National Emission Standard for Hazardous Air Pollutants (NESHAP) exists, tBACT would be for the minor source to meet the standards set in the NESHAP.

In this case, 40 CFR 63, Subpart VVVV is the NESHAP for Boat Manufacturing. Subpart VVVV contains limits to organic HAPs. Subpart VVVV has provisions for sources to meet the NESHAP in multiple ways including: compliant materials, compliant materials with annual averaging, point value averaging, and add-on controls. Add-on controls might include thermal oxidizers, catalytic oxidizers, adsorbors, condensers, biofilters, plus several other potential technologies.

At the level of emissions proposed, the only considered tBACT option is the compliant materials option with annual averaging. With small changes to their chosen materials it may be possible for the source to meet the limits using just compliant materials. If the source desires to emit at levels greater than that proposed (a combined 5 tons per year of styrene and MMA), then further analysis of the technical and economic feasibility of add-on controls would be needed. As such, the agency has set a tBACT limit of compliant materials (with and/or without averaging) and emission of combined styrene and MMA no greater than five tons per year. If the 5 tons per year limit is exceeded, the permit will require that the source report that to the agency. At that time the agency will review the source calculations and if the exceeding value is confirmed then require that a application to modify the order be submitted with a revised BACT and tBACT evaluation of the technical and economic feasibility of add-on controls.

BACT for PM and tBACT for cobalt is for emissions to pass emissions through a particulate filter of at least 98 percent efficiency to a vertical stack. Ninety-eight percent efficient filters are readily available for spray coatings. This is the same filter efficiency standard included in the Spray coating area source NESHAP. Additionally, because, at the level of proposed emissions with controls, no visible emissions are expected from this source, BACT for particulate is no visible emissions.

H. Ambient Impact Analysis

At 0.05 tons per year, particulate matter emissions are substantially less than the emission thresholds in WAC 173-400-030(27). Based on such small emission rate of particulate matter, no dispersion modeling was done for particulate.

However, potential emissions of toxic air pollutants may be required to be modeled if their emissions are greater than the small quantity emission rates (SQERs). In this case all the known toxic air pollutants emitted have a 24-hour averaging period. This makes it necessary to determine a maximum daily emission rate. The proposed (and limited operation) is at 60 boats per year. Operating at the proposed level this amounts to 0.23 boats per day on average. However, it could well be that some day production is greater than the average proposed level of activity. Discussions with the source indicate that they expect daily production to be well under a single boat per day. The application notes 2-6 hours per day of spraying, 5 days per week. Assuming a high spraying rate of 6-hours per day and scaling the level of operation to 8,760 hours of operation per year results in a maximum daily production rate of 1.3 boats per day, or

5.7 times their limited annual average production rate. It is considered unlikely that this amount of operation will occur even on a short-term average.

At an operational level of 1.3 boats per day, there would be emission of 176 pounds of styrene, 26 pounds of MMA, and 0.02 pounds of cobalt. At this rate of operation both styrene and cobalt emissions are greater than the SQERs and thus were modeled to determine whether daily emissions would not exceed the ASILs. This estimate of maximum daily emissions is shown in Table 4. The results of the ASIL analysis are shown in Table 5.

Table 4 – Estimated Maximum 24-hour Emissions.

	Gallons	Density (lb/gal)	Use (lb)	% Styrene	Styrene Emission Factor (lb/ton)	Styrene Emitted (lb)	% MMA	MMA Emission Factor (lb/ton)	MMA Emitted (lb)	Solids (lb/gal)	% Cobalt Compounds	Cobalt Emitted (lb)	Emitted PM (lb)
Gelcoat													
	69	10.12	693	25.6%	167	57.8	5.1%	75	26.0	6.8	13.5%	0.015	0.5
Resin													
	251	9.05	2,268	34.2%	97	109.6	0%	0	0.0	6.0	0.2%	0.005	1.5
Putty													
	26	11.86	311	23%	57.96	9.0	0%	0	0.0	9.0	0	0.00	0.0

Total styrene (lb)	176.4	**Total MMA (lb)**	26.0	**Total Cobalt Compounds (lb)**	0.020	**Total Particulate (lb)**	2.0
Total HAP (tpy)	0.1					**Total Particulate (tpy)**	0.00

Notes:

1. Emissions Factors from *Unified Emission Factors for Open Molding of Composites*, July 23, 2001.
2. Gelcoat emission factor for Controlled Spray Application.
3. Resin emission factor for Mechanical Atomized.
4. Putty emission factor for manual.
5. Particulate filter effectiveness assumed the permit limit of 98%.
6. Transfer efficiency is assumed to be 95%.
7. Capture efficiency of hoods assumed to 100%.
8. Est. Boats per day 1.30
9. The gelcoat cobalt is is a mixture of cobalt neodecanoate with a molecular weight of 401.44 and cobalt 2-ethylhexanoate with a molecular weight of 345.42. Thus the elemental cobalt emissions for gelcoat have been adjusted by the proportion of each compound, a proportion of 0.165

Table 5 – ASIL and Odor Analysis

Unit:	Spray Booth Stack	
Emission rate:	1.0000	g/s
Stack Height (approx):	36.00	ft (11.0 m)
Stack diameter (eq. circular)	24.00	inch (0.61 m)
Volumetric Flow rate:	10,000	cfm (4.72 cms)
Exit Velocity	7.742	m/s
Exit Temperature:	293.15	K
Building Height	27.5	ft (8.4 m)
Min Dim	24	m
Max Dim	61	m
Distance to Fenceline:	0.0	m
Annual	70.32	
24-hr	351.6	
1-hr	879	at 45 m

	24-hr (g/s)	*Modeled ($\mu g/m^3$)*	*ASIL ($\mu g/m^3$)*	*mol wt.*	*24-hr Ave. 3-minute ppm*	*Odor Threshold (ppm)*	*Max 3-minute use (g/s)*	*Modeled Max 3-minute Concentration (ppm)*
Cobalt	1.05E-04	0.04	0.1	58.9	NA	NA	NA	NA
Methyl Methacrylate	1.36E-01	48	700	100.1	0.053	0.083	7.5	2.9
Styrene	9.26E-01	326	900	104.2	0.348	0.32	7.5	7.0

Note:

1. Short term 24-hr emission rate based on scaling 6 hours of spraying per day up to 8760 hours per year.
2. Maximum 3-minute emission rate based on 2 guns operating at 12 oz/ minute for three minutes of clear gelcoat (up to 48% styrene).

Review of Table 5 shows that for cobalt and styrene, at the estimated 24-hour emission rate, concentrations of both compounds are estimated using TSCREEN to be less than the ASILs.

While there are neither ambient concentrations standards for odor nor any sort of ASIL for odor, there is agency Regulation I, Section 9.11 which sets out an actionable level of odor as a source of odor that is distinct, definite, with recognizable unpleasant characteristics that elicits a complaint. Odor thresholds used in modeling are developed by polling a panel of people as to what concentration they are able to detect the presence of a given substance. Because of this, odor thresholds are an average of a small number of people's ability to smell a substance and modeling concentration above an odor threshold do not show that all people will necessarily detect an odor. Similarly modeling concentrations below an odor threshold does not indicate that all people will detect no odor. At best, the modeling of odor threshold gives a qualitative impression as to whether an odor might be present.

In this case, modeling of the expected maximum level of operations (60 boats per year) showed both MMA and styrene being emitted on-average at concentrations less than the odor thresholds. However, a worst case assumption of two guns spraying at 12 oz per minute a 48% styrene (or MMA) high density coating indicates that for short periods emission ambient concentrations may be well above the odor thresholds. In the middle ground, at the maximum daily production rate of 1.3 boats per day, styrene was slightly above the odor threshold but MMA was not.

Thus, the odor analysis indicates that at the proposed level of operations the odor level on average will be low but it is possible that detectable levels of odor could occur from the facility. This is consistent with the past history of the facility. When the facility operated as Glacier Bay Catamarans, during inspections, styrene odor was sometimes noted outside the facility. The Glacier Bay Catamarans facility operated at levels several times the level proposed in this application and did not have a history of odor complaints. The closest residential housing is a quarter mile away from the facility and all the nearby area is an industrial area. Therefore, while some odor may be present over short periods, it is not expected to generate complaints, impact residential areas, or be an ongoing problem. Because there is the potential for ambient odor a complaint recording and response permit condition has been included in Section K.

I. Public Notice Requirement

No.

J. Operating Permit or PSD

No.

K. Recommended Approval Conditions

3. Fluid Motion shall not apply coatings containing chromium, lead, manganese, nickel, or cadmium. Fluid motion shall not use methylene chloride (MeCl) for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates.

4. Fluid Motion shall not exceed the organic Hazardous Air Pollutant (HAP) content specifications in a) through g) of this condition using a 12-month rolling weighted average.
   a. Production resin applied with atomized spray shall not exceed 28 percent organic HAP.
   b. Production resin applied through nonatomized (nonspray) methods shall not exceed 35 percent organic HAP.
   c. Pigmented gelcoat shall not exceed 33 percent organic HAP.
   d. Clear gelcoat shall not exceed 48 percent organic HAP.
   e. Tooling resin applied with atomized spray shall not exceed 30 percent organic HAP.
   f. Tooling resin applied through nonatomized (nonspray) methods shall not exceed 39 percent organic HAP.
   g. Tooling gel coat shall not exceed 40 percent organic HAP.

5. To demonstrate compliance with Condition 4:
   a. For each resin and gelcoat, record the organic HAP content.
   b. For each production resin and tooling resin, record the application method.
   c. For each resin and gelcoat, record the amount of material used each month.
   d. If each resin and gelcoat is not greater than the organic HAP content specifications in Condition 4.a through 4.g then compliance has been demonstrated.
   e. For any month where a resin or gelcoat exceeds the specifications in 4.a through 4.g then for the category of material and application method calculate the previous 12-month rolling weighted average using the calculation method in 40 CFR 63.5713 equation 1.

6. If any of the calculations carried out in Condition 5.e demonstrates a value exceeding one of the organic HAP specifications in Condition 4, provide a report to the agency within 30 days of the end of the month in which the calculation was carried out showing the calculation, the data that was used in the calculation, and the value calculated.

7. Fluid motion shall limit combined styrene and methyl methacrylate emissions during any 12-month period to no greater than 5 tons. Each month calculate the previous 12-months total emissions of styrene and methyl methacrylate using the Unified Emission Factors for Open Molding of Composites.

8. If the combined emissions of styrene and methyl methacrylate during any 12-month period are greater than 5 ton limit in Condition 7, then provide a report to the agency within 30 days of the end of the month in which the calculation was carried out showing the calculation, the data that was used in the calculation, and the value calculated.

9. Fluid Motion shall use in these booths only spray equipment that achieves transfer efficiency equal to or greater than 65%, which includes but is not limited to, HVLP or air assisted airless spray guns, for the application of resin, gel-coat and other paint. Fluid Motion shall maintain records onsite demonstrating the spray equipment's efficiency.

10. Spray booth exhaust filters shall have a capture efficiency of 98% or greater, as demonstrated consistent with ASHRAE Method 52.1, Gravimetric and Dust Spot Procedures for Testing Air Cleaning Devices Used in General Ventilation for Removing Particulate Matter, or equivalent test method accepted by the Agency.

11. Fluid Motion shall not allow visible emissions from the spray coating operations.

12. The spray booths shall be equipped with a gauge (manometer or magnehelic) to measure the pressure drop across the exhaust filters. Within 30 days after the start of operation, the acceptable pressure drop range shall be clearly marked on or near the gauge. The minimum pressure drop shall not be less than the pressure drop measured with a clean, properly installed filter.

13. Once each shift of operation, each spray booth shall be inspected for:
    a. Is the pressure drop measurement device operating?
    b. Is the pressure drop across the exhaust filter within the acceptable range?
    c. Does the exhaust filter completely cover the exhaust plenum?

14. Record the results of each inspection in a written log. If any of the above (in 13.a) through c)) problems are identified, discontinue spray coating operations until corrective action has fixed the problem, and document corrective action in a written log.

15. Fluid Motion shall use best management practices in its sanding, painting, and fiber glassing activities in the area. These practices include the collection of VOC-containing materials used for cleanup of equipment to minimize evaporation, keeping containers used for the storage and disposal of VOC-containing materials closed except when cleaning the containers, adding material to the containers, mixing material in the containers, or removing material from the containers.

16. Fluid Motion shall investigate and document complaints regarding odor, fugitive dust, or nuisance as soon as possible, but no later than 2 hours after receipt of the complaint. The O&M Plan shall include good industrial practices for returning the plant to compliant status within 24 hours, if the cause of the complaint is verified to originate from this plant. Complaint records shall include:
    a. The name, phone number and address of a complainant (if known);
    b. The date, time and nature of complaints; and

c. The date, time, results and corrective actions of any complaint investigations.

17. All records of observations and supporting documentation which are required by this Order shall be completed contemporaneously and no later than the time period specified in the appropriate condition. Records to be maintained by this Order of Approval shall be kept for at least two years from the date of generation, and made available to Puget Sound Clean Air Agency personnel upon request.

L. Recommendation for Legal Review

No.

M. Other Comments

1. *E-mail to Oguz Aksan, September 24, 2010*

From: Brian Renninger
To: "oaksan@aol.com"
Subject: NOC 10220 Fluid Motion Application Incomplete
Date: Friday, September 24, 2010 12:01:00 PM

Mr. Aksan,

Thank you for your application for a fiberglass boat building facility. I believe you previously spoke with Ms. Jüttner of our agency regarding your application. Due to workload and facility history issues your permit application has been assigned from Ms.Jüttner to myself.

Unfortunately, your application is incomplete. Answers to the following questions will be needed to bring your application toward completeness.

1. SEPA. The SEPA checklist you provided is incomplete. Specifically, the two questions on the first page were not answered, item 8.a was not answered, 14.a, and additionally the date block for the signature was not completed. Please provide a complete signed copy of the SEPA checklist. I understand that these are minor points but SEPA is particular in regards to checklist completeness.

2. SEPA. In addition to the provided SEPA checklist, your application also includes a request that SEPA fees be waived. The way to avoid SEPA fees is for the current application's activities to have already have been reviewed under SEPA. While the agency has issued a number of SEPA determinations for previous permits at the site, your application needs to identify which determination you believe is the appropriate determination to rely on and also to present the argument as to why the historically reviewed activities are equivalent to your proposed activities. The argument should present comparisons in products, material compositions, and overall emission types and amounts.

3. Emission inventory. Please provide the MSDS sheets for each gel coat, resin, putty, and other emitting material used in your process.

4. Emission inventory. Please provide the background reference material for the emission factors used in the application. These appear to be the Unified Emission Factors for Open Molding of Composites but I have not been able to verify this for all cases.

5. Emission inventory. From the emission factors used in your application it appears that for gel coat application the emission factor was chosen based on controlled spray application. Please provide a discussion of planned spray gun pressure calibration procedures and spray operator training that will be in place to ensure that actual emissions will match the chosen emission factor.

6. Emission inventory. From the emission factor chosen for putty application I was not able to confirm the emission factor. As in (4) above please provide the reference for the putty application emission factor.

7. Emission inventory. The emission inventory includes a category of "other HAPs". Please provide how these other HAP emissions were determined and also a specification what they are and in what amounts they are emitted. Note that this is necessary in order to determine which of the HAPs are also toxic air pollutants included in Department of Ecology's rule WAC 173-460. A complete review of facility released toxics in comparison to the Acceptable Source Impact Levels (ASIL) and Small Quantity Emission Rates (SQERs) is needed in order to complete your application.

8. Emission inventory. Please provide a description of which products will be emitted from each stack. Is gel coat and resin applied near both filters or is each activity more specific to a particular filter. This information may be necessary in regards to the ASIL review mentioned in (7) above.

9. Emission inventory. Please provide an emission inventory for particulate and VOC in addition to the

2. ***E-mail to Stella Nehan, September 23, 2010***

Glacier Bay Catamarans NOC Envelopes (reg#18523) - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Fri 9/24/2010 1:27 PM
To: Stella Nehen
Cc:
Subject: Glacier Bay Catamarans NOC Envelopes (reg#18523)

Stella,

Could you pull the following NOC envelopes for Glacier Bay Catamarans (reg#18523)

NOC 7417
NOC 7770
NOC 8795
NOC 9501

Also, could you see if we issued DNSs for 7417 and 9501? In the scanned copies I show a DNS for 7770 and a lead agency record for 8795 but nothing for the other two.

Thanks.

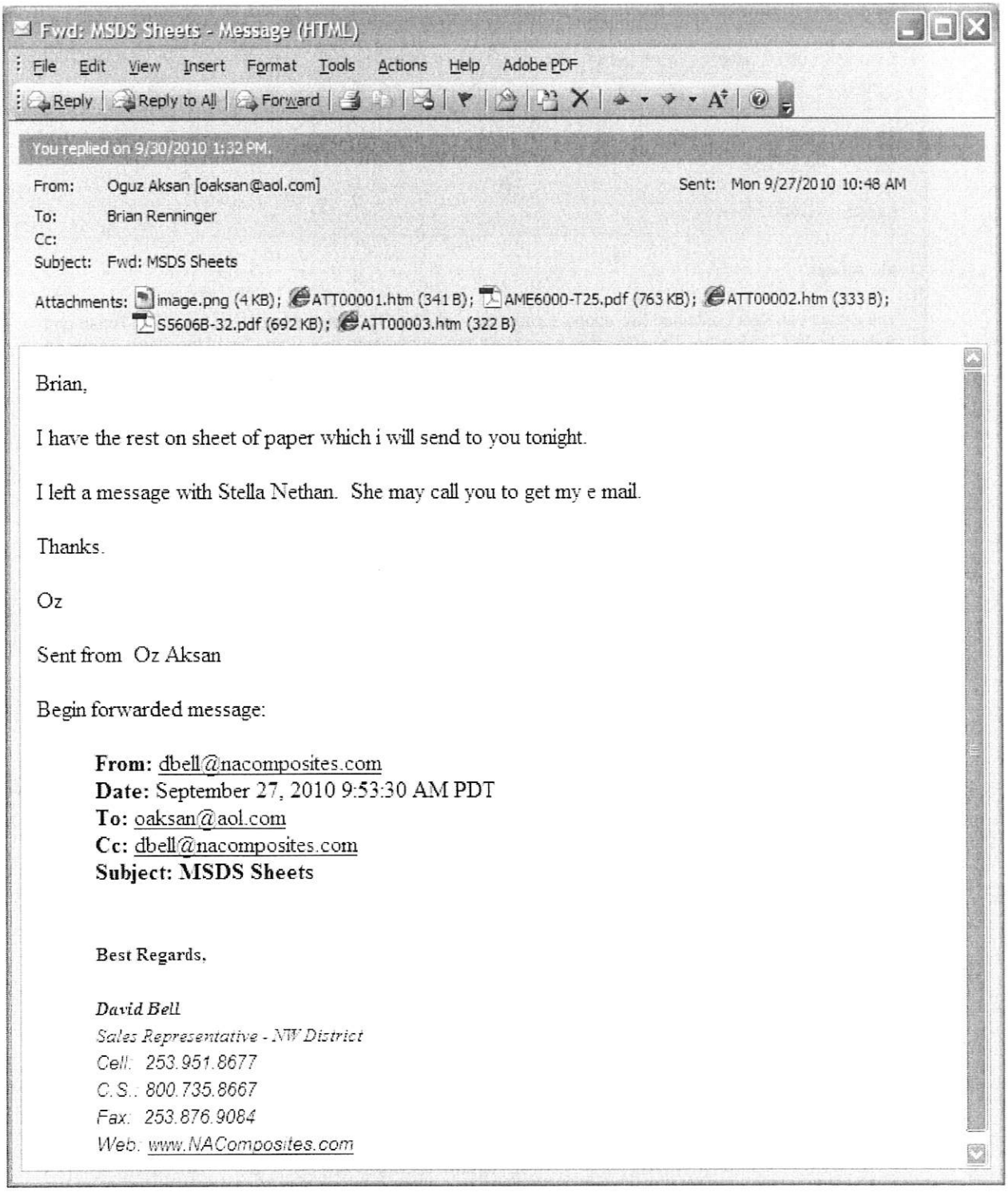
Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

3. *E-mail from Oguz Aksan, September 24, 2010*



Fwd: MSDS Sheets - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

You replied on 9/30/2010 1:32 PM.

From: Oguz Aksan [oaksan@aol.com] Sent: Mon 9/27/2010 10:48 AM

To: Brian Renninger

Cc:

Subject: Fwd: MSDS Sheets

Attachments: image.png (4 KB); ATT00001.htm (341 B); AME6000-T25.pdf (763 KB); ATT00002.htm (333 B); S5606B-32.pdf (692 KB); ATT00003.htm (322 B)

Brian,

I have the rest on sheet of paper which i will send to you tonight.

I left a message with Stella Nethan. She may call you to get my e mail.

Thanks.

Oz

Sent from Oz Aksan

Begin forwarded message:

From: dbell@nacomposites.com
Date: September 27, 2010 9:53:30 AM PDT
To: oaksan@aol.com
Cc: dbell@nacomposites.com
Subject: MSDS Sheets

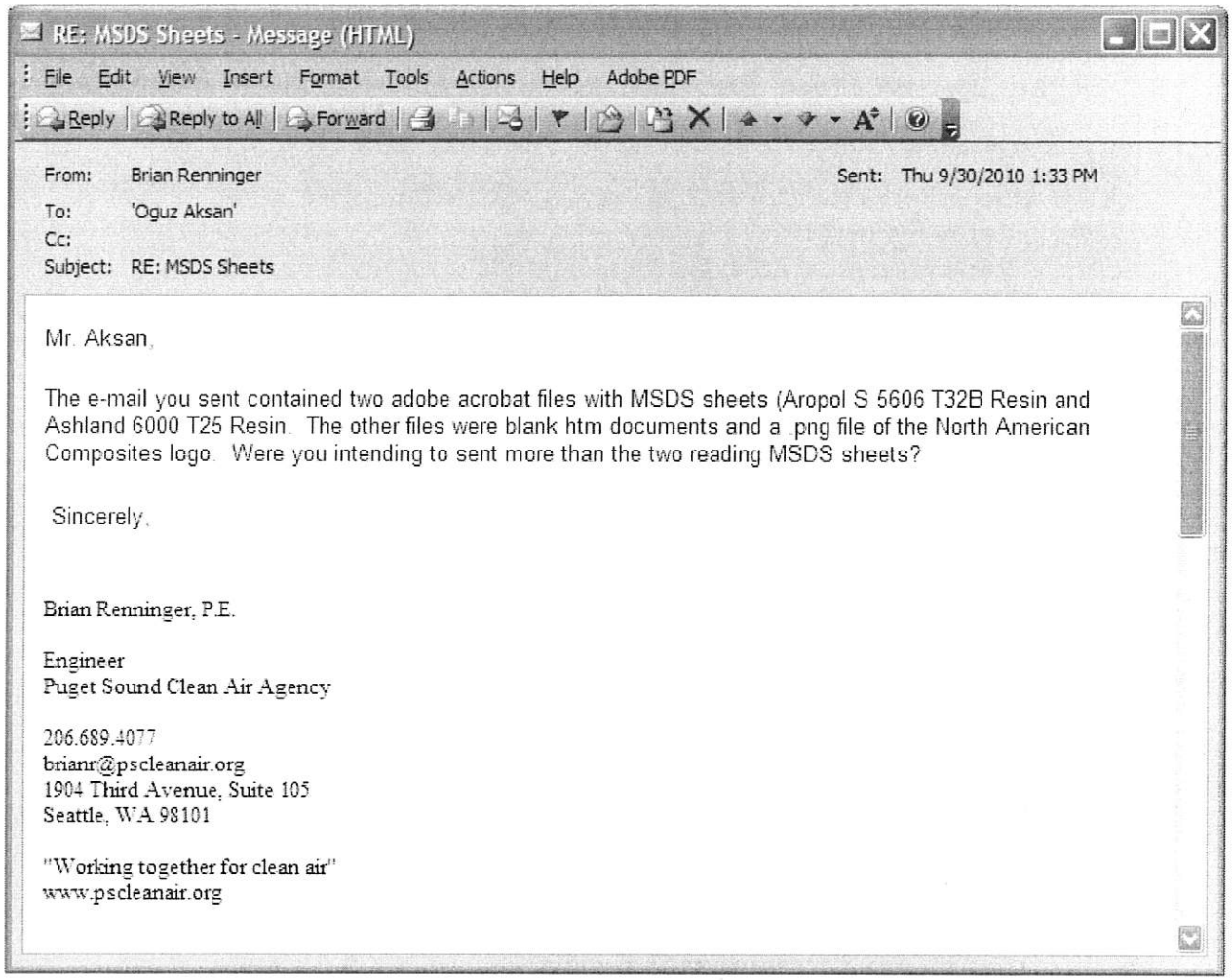
Best Regards,

David Bell
Sales Representative - NW District
Cell. 253.951.8677
C.S.. 800.735.8667
Fax. 253.876.9084
Web: www.NAComposites.com

4. *E-mail from Oguz Aksan, September 29, 2010*

Acrobat Document

5. *E-mail to Oguz Aksan, September 30, 2010*



RE: MSDS Sheets - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Thu 9/30/2010 1:33 PM
To: 'Oguz Aksan'
Cc:
Subject: RE: MSDS Sheets

Mr. Aksan,

The e-mail you sent contained two adobe acrobat files with MSDS sheets (Aropol S 5606 T32B Resin and Ashland 6000 T25 Resin. The other files were blank htm documents and a .png file of the North American Composites logo. Were you intending to sent more than the two reading MSDS sheets?

Sincerely,

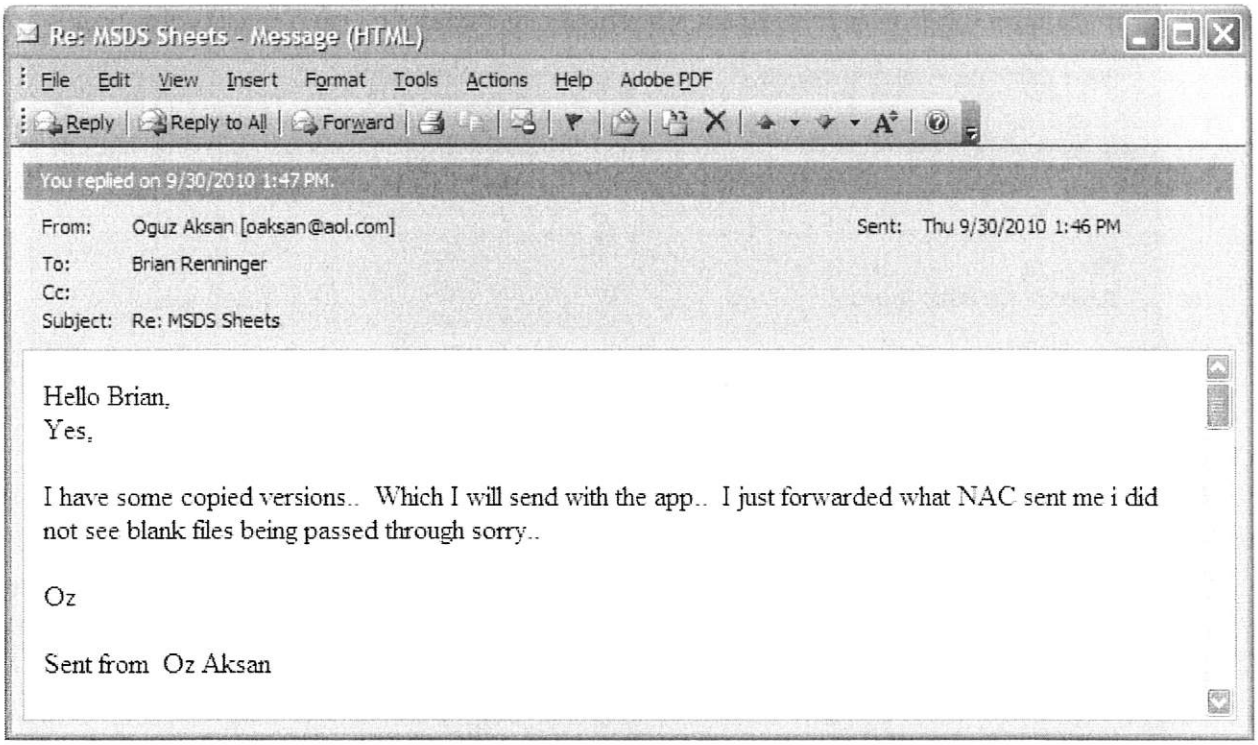
Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

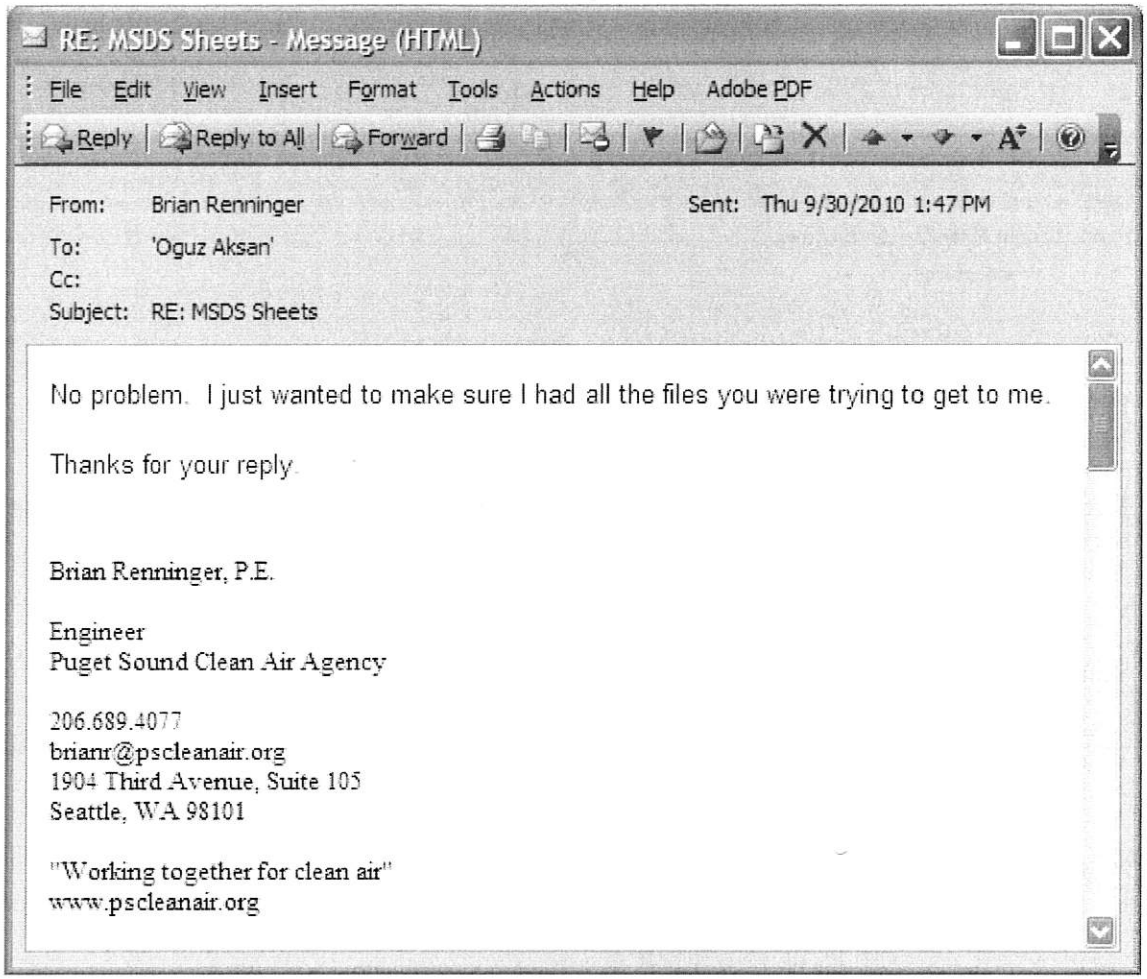
206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

6. ***E-mail from Oguz Aksan, September 30, 2010***



7. ***E-mail to Oguz Aksan, September 30, 2010***



RE: MSDS Sheets - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Thu 9/30/2010 1:47 PM

To: 'Oguz Aksan'

Cc:

Subject: RE: MSDS Sheets

No problem. I just wanted to make sure I had all the files you were trying to get to me.

Thanks for your reply.

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
briann@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

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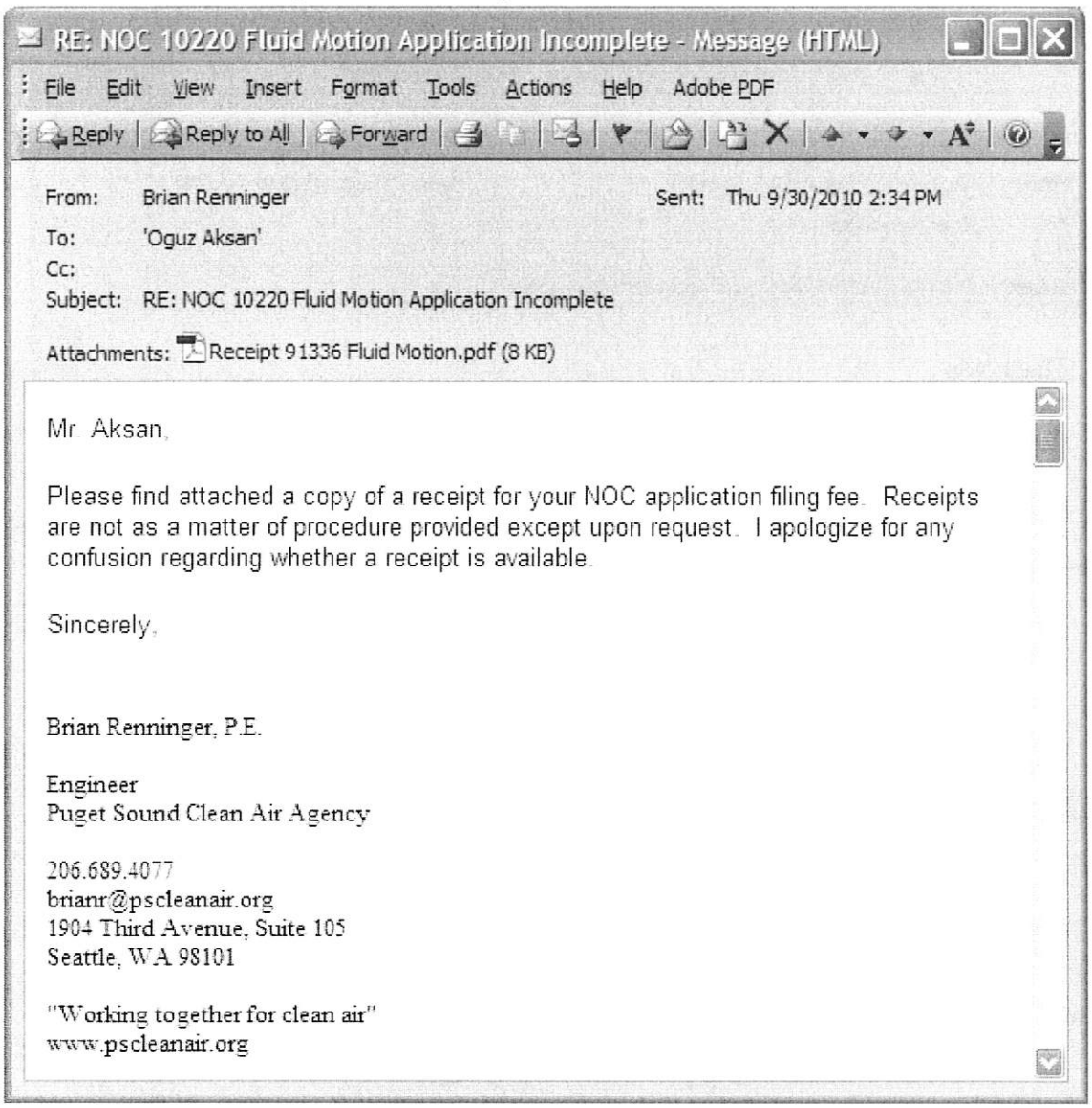
8. ***E-mail to Oguz Aksan, September 30, 2010***



RE: NOC 10220 Fluid Motion Application Incomplete - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Thu 9/30/2010 2:34 PM

To: 'Oguz Aksan'

Cc:

Subject: RE: NOC 10220 Fluid Motion Application Incomplete

Attachments: Receipt 91336 Fluid Motion.pdf (8 KB)

Mr. Aksan,

Please find attached a copy of a receipt for your NOC application filing fee. Receipts are not as a matter of procedure provided except upon request. I apologize for any confusion regarding whether a receipt is available.

Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

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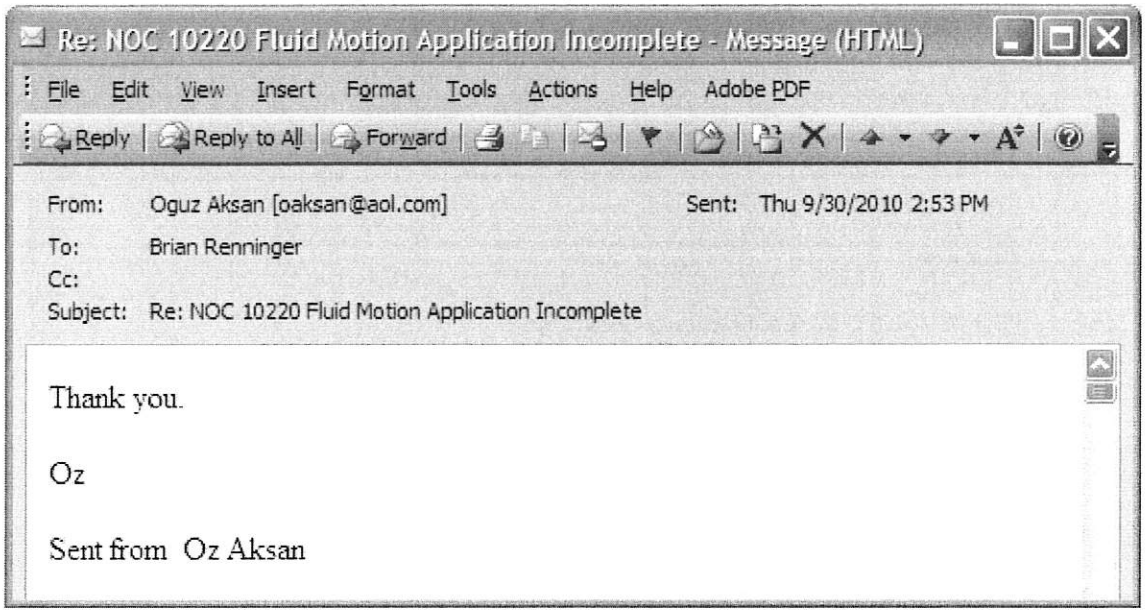
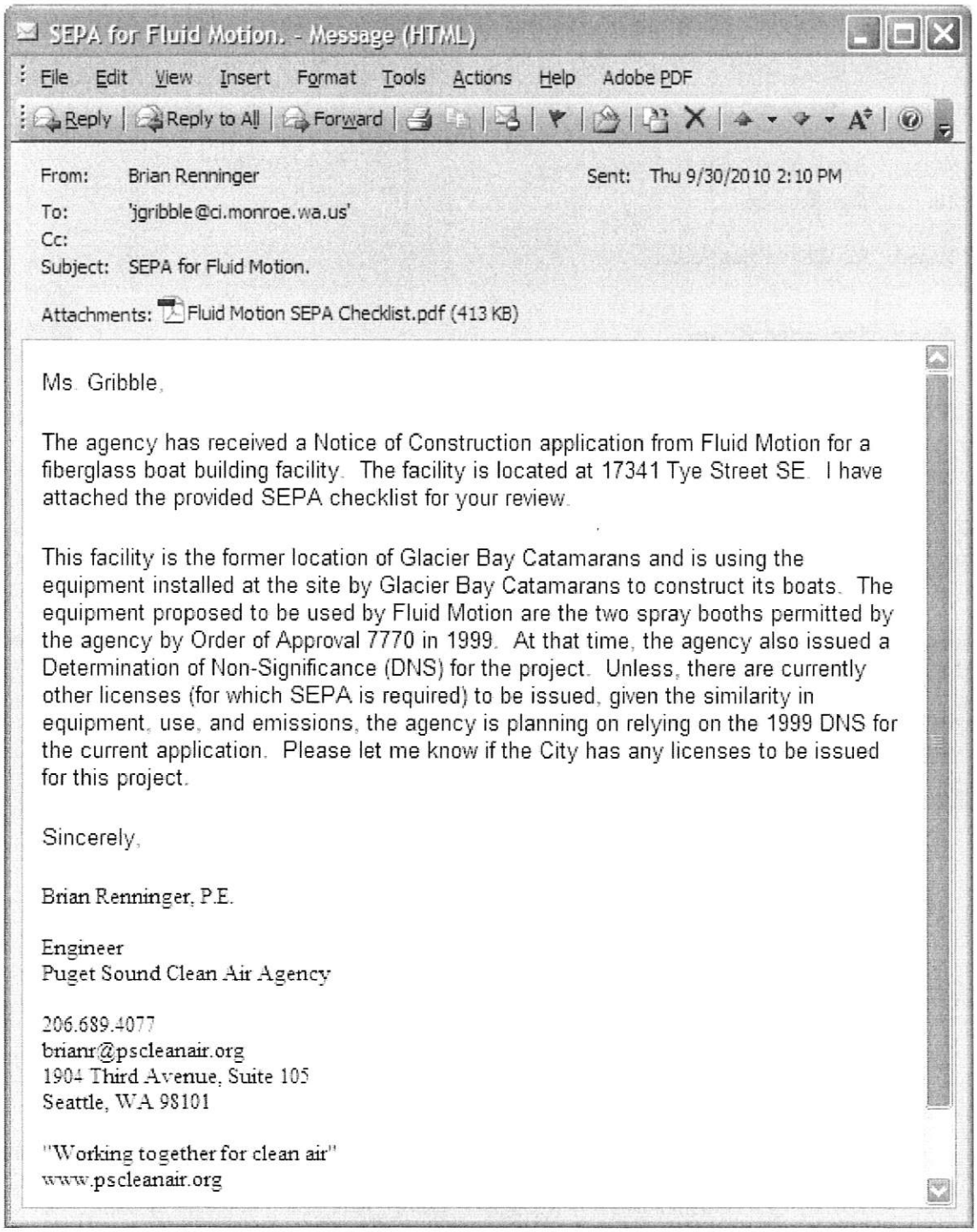
9. ***E-mail from Oguz Aksan, September 30, 2010***



10. *E-mail to Judy Gribble, City of Monroe, September 30, 2010*



SEPA for Fluid Motion. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Thu 9/30/2010 2:10 PM
To: 'jgribble@ci.monroe.wa.us'
Cc:
Subject: SEPA for Fluid Motion.

Attachments: Fluid Motion SEPA Checklist.pdf (413 KB)

Ms. Gribble,

The agency has received a Notice of Construction application from Fluid Motion for a fiberglass boat building facility. The facility is located at 17341 Tye Street SE. I have attached the provided SEPA checklist for your review.

This facility is the former location of Glacier Bay Catamarans and is using the equipment installed at the site by Glacier Bay Catamarans to construct its boats. The equipment proposed to be used by Fluid Motion are the two spray booths permitted by the agency by Order of Approval 7770 in 1999. At that time, the agency also issued a Determination of Non-Significance (DNS) for the project. Unless, there are currently other licenses (for which SEPA is required) to be issued, given the similarity in equipment, use, and emissions, the agency is planning on relying on the 1999 DNS for the current application. Please let me know if the City has any licenses to be issued for this project.

Sincerely,

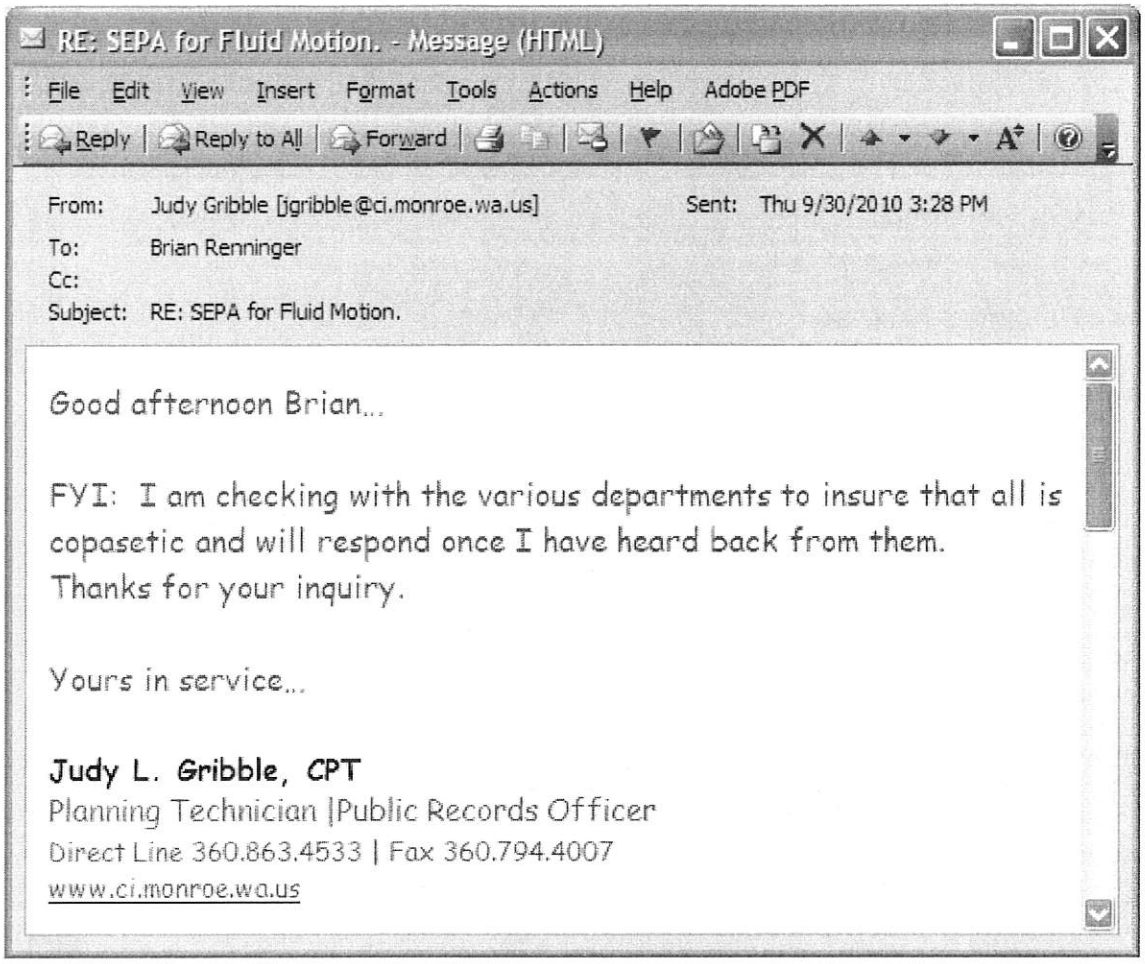
Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

11. ***E-mail from Judy Gribble, City of Monroe, September 30, 2010***



RE: SEPA for Fluid Motion. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Judy Gribble [jgribble@ci.monroe.wa.us] Sent: Thu 9/30/2010 3:28 PM

To: Brian Renninger

Cc:

Subject: RE: SEPA for Fluid Motion.

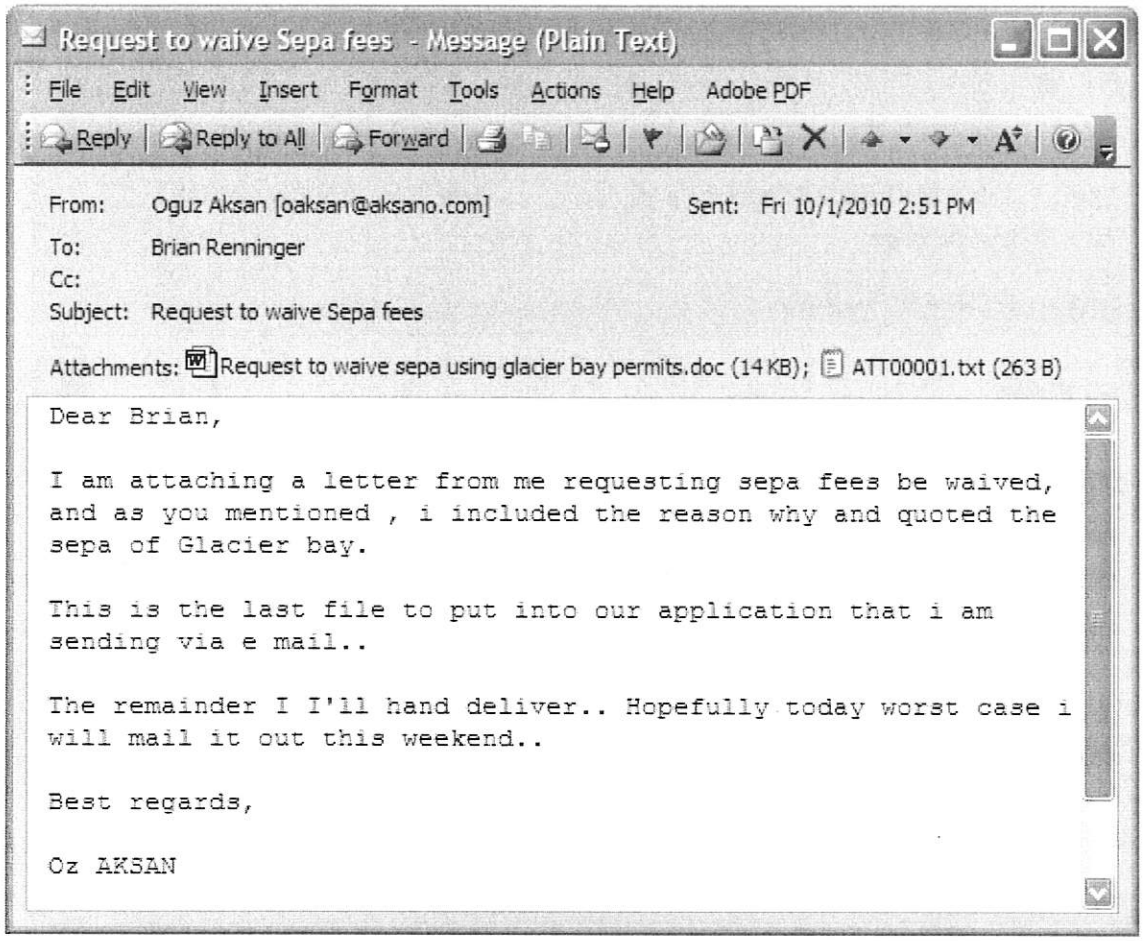
Good afternoon Brian...

FYI: I am checking with the various departments to insure that all is copasetic and will respond once I have heard back from them.
Thanks for your inquiry.

Yours in service...

Judy L. Gribble, CPT
Planning Technician |Public Records Officer
Direct Line 360.863.4533 | Fax 360.794.4007
www.ci.monroe.wa.us

12. ***E-mail from Oguz Aksan, October 1, 2010***



Request to waive Sepa fees - Message (Plain Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Oguz Aksan [oaksan@aksano.com] Sent: Fri 10/1/2010 2:51 PM

To: Brian Renninger

Cc:

Subject: Request to waive Sepa fees

Attachments: Request to waive sepa using glacier bay permits.doc (14 KB); ATT00001.txt (263 B)

Dear Brian,

I am attaching a letter from me requesting sepa fees be waived, and as you mentioned , i included the reason why and quoted the sepa of Glacier bay.

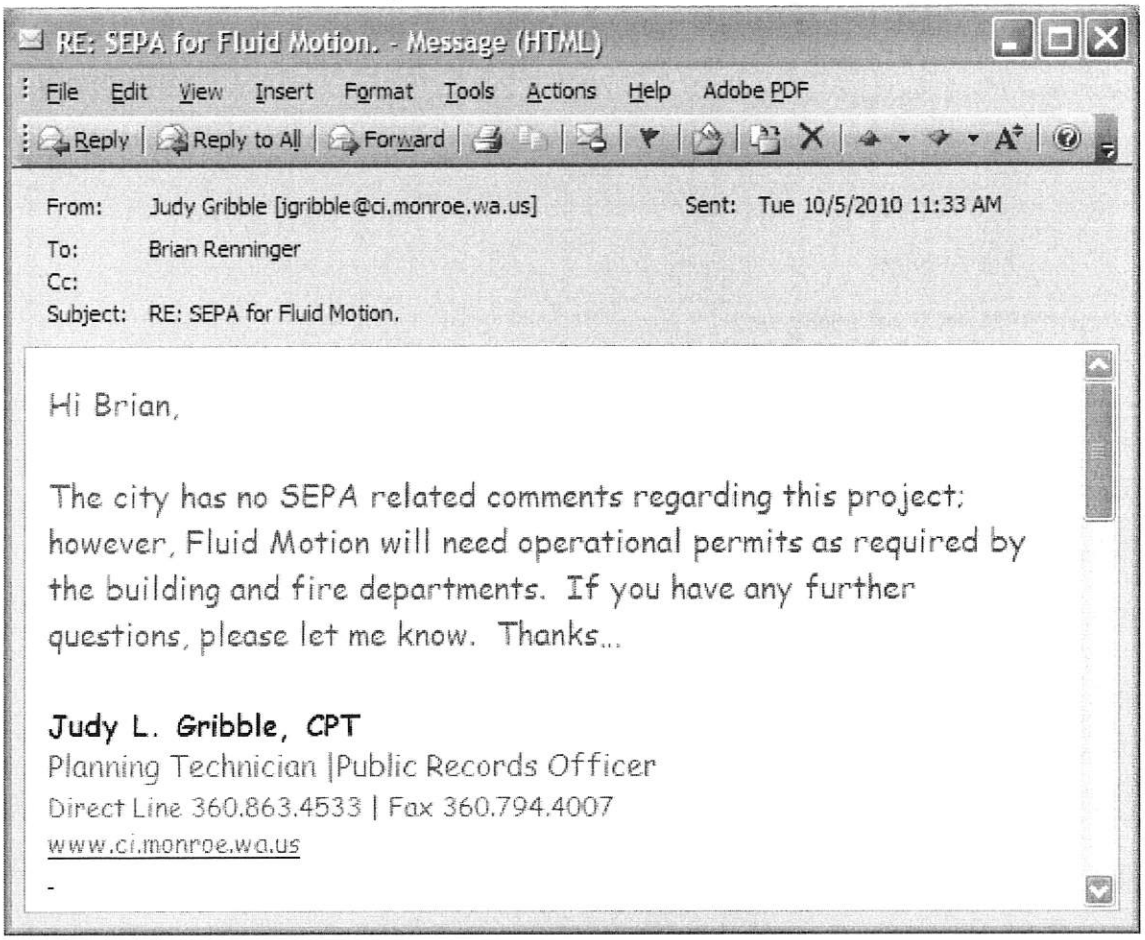
This is the last file to put into our application that i am sending via e mail..

The remainder I I'll hand deliver.. Hopefully today worst case i will mail it out this weekend..

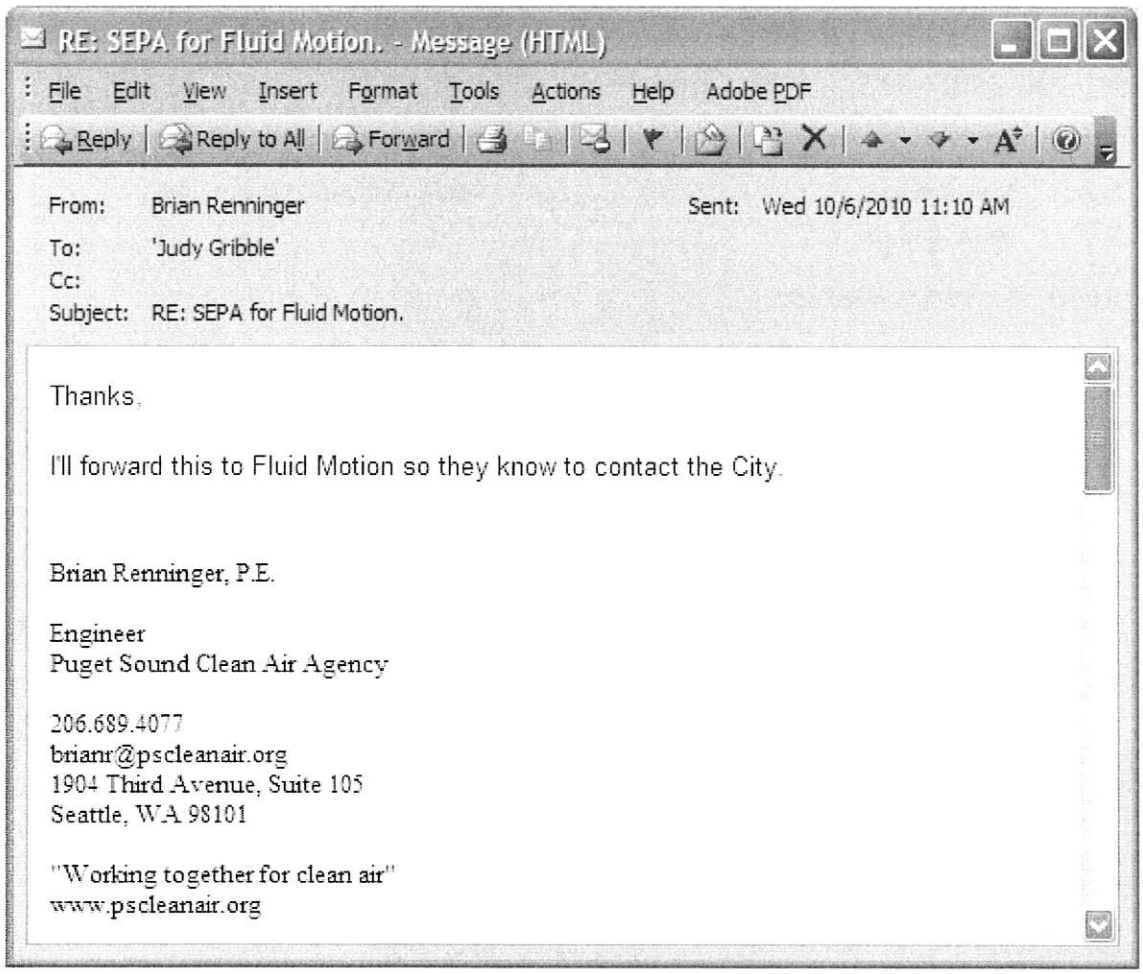
Best regards,

Oz AKSAN

13. ***E-mail from Judy Gribble, City of Monroe, October 5, 2010***



14. E-mail to Judy Gribble, City of Monroe, October 6, 2010



RE: SEPA for Fluid Motion. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Wed 10/6/2010 11:10 AM
To: 'Judy Gribble'
Cc:
Subject: RE: SEPA for Fluid Motion.

Thanks.

I'll forward this to Fluid Motion so they know to contact the City.

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
briann@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

15. E-mail to Oguz Aksan, October 6, 2010

FW: SEPA for Fluid Motion. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Wed 10/6/2010 11:13 AM
To: 'oaksan@aol.com'
Cc:
Subject: FW: SEPA for Fluid Motion.

Mr. Aksan,

It looks like the City of Monroe has no SEPA concerns for the proposed facility so I will plan on using the historical SEPA determination for NOC 7770 for your application.

I does look like there may be some operational permits needed from the building and fire departments. My recommendation is to contact the city and make sure what you need is in place.

Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
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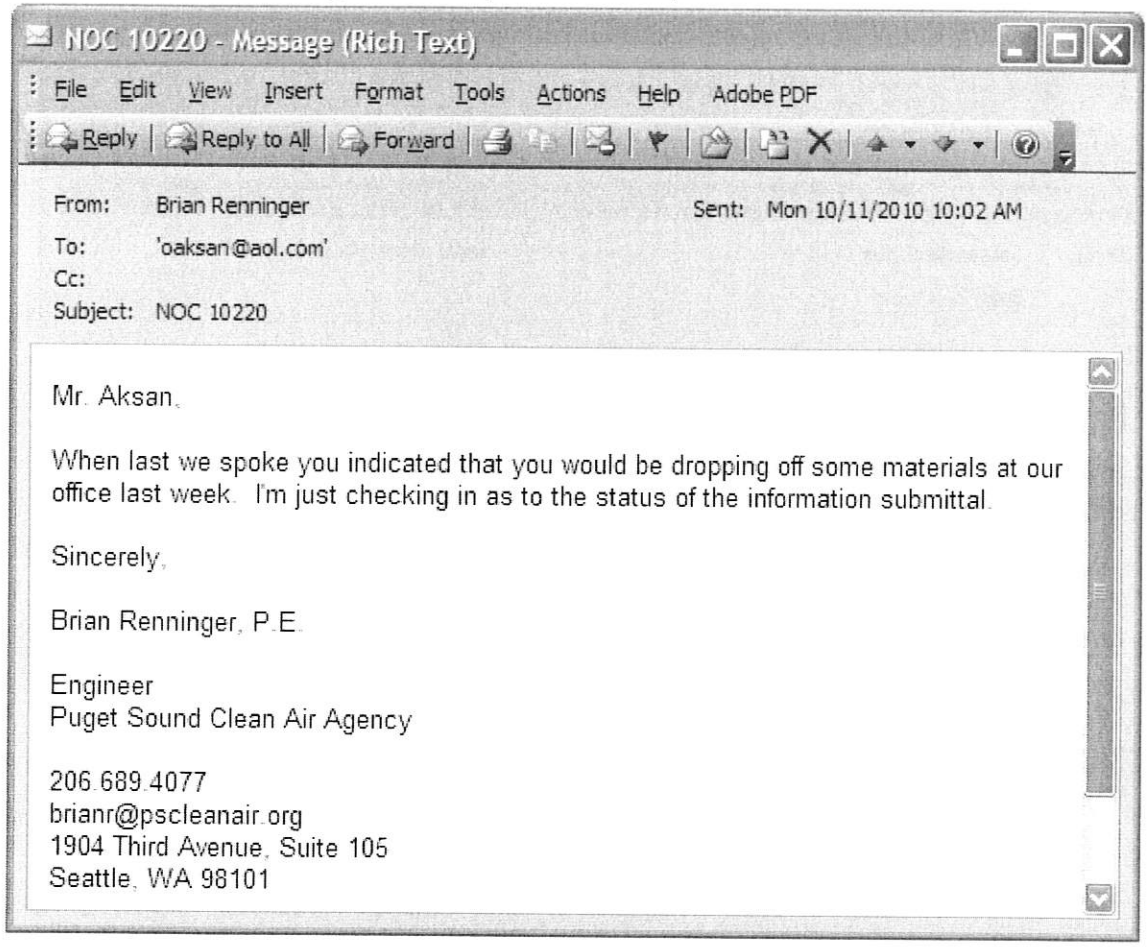
16. ***E-mail to Oguz Aksan, October 11, 2010***



NOC 10220 - Message (Rich Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Mon 10/11/2010 10:02 AM

To: 'oaksan@aol.com'

Cc:

Subject: NOC 10220

Mr. Aksan,

When last we spoke you indicated that you would be dropping off some materials at our office last week. I'm just checking in as to the status of the information submittal.

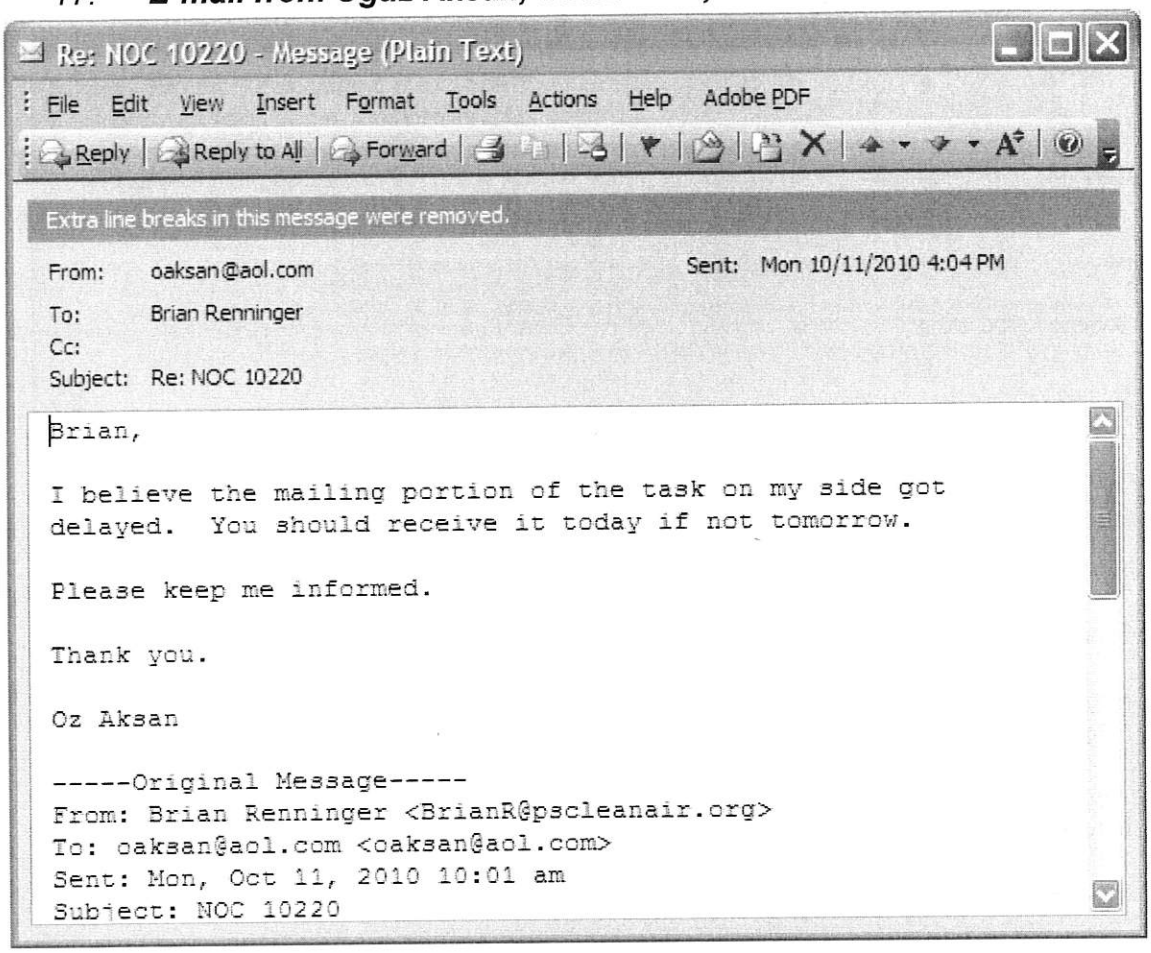
Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

17. ***E-mail from Oguz Aksan, October 11, 2010***



Re: NOC 10220 - Message (Plain Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

Extra line breaks in this message were removed.

From: oaksan@aol.com Sent: Mon 10/11/2010 4:04 PM

To: Brian Renninger

Cc:

Subject: Re: NOC 10220

Brian,

I believe the mailing portion of the task on my side got delayed. You should receive it today if not tomorrow.

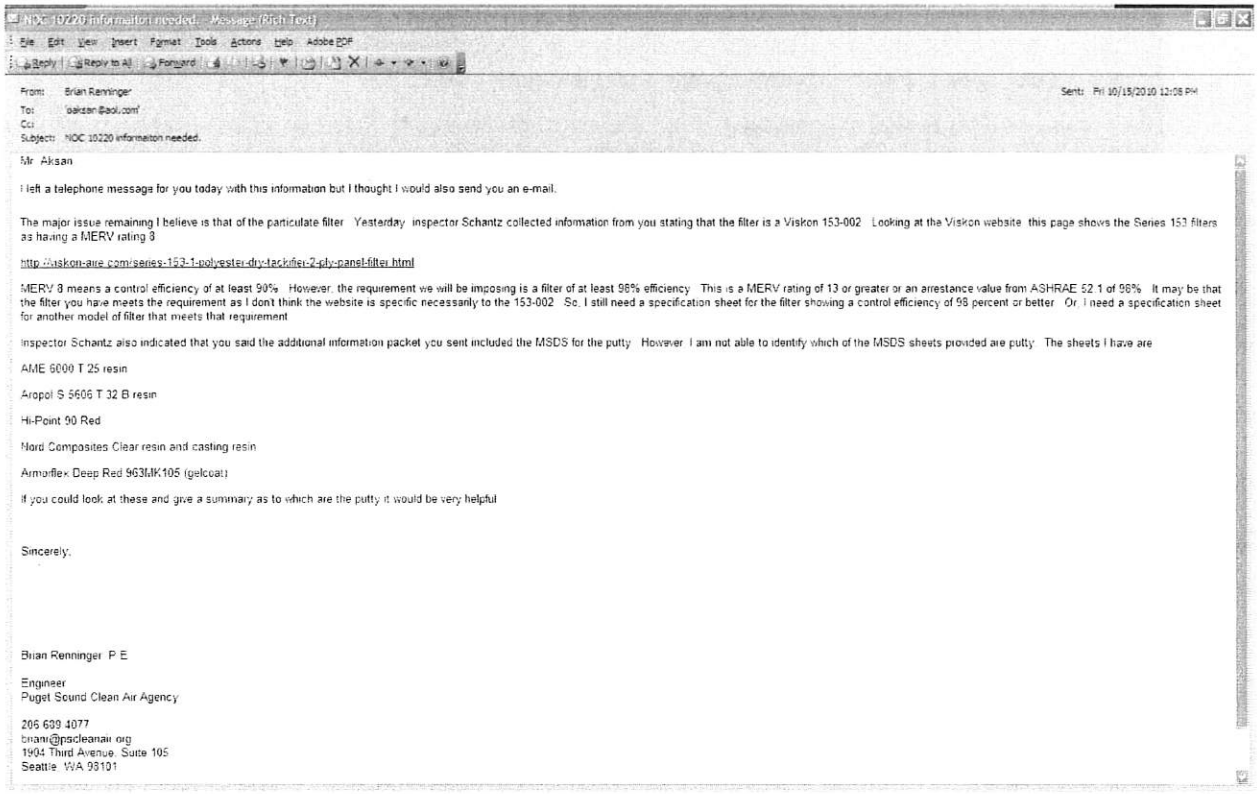
Please keep me informed.

Thank you.

Oz Aksan

-----Original Message-----
From: Brian Renninger <BrianR@pscleanair.org>
To: oaksan@aol.com <oaksan@aol.com>
Sent: Mon, Oct 11, 2010 10:01 am
Subject: NOC 10220

18. *E-mail to Oguz Aksan, October 15, 2010*



NOC 10220 information needed. - Message (Rich Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger
Sent: Fri 10/15/2010 12:08 PM
To: 'oaksan@aol.com'
Cc:
Subject: NOC 10220 information needed.

Mr Aksan

I left a telephone message for you today with this information but I thought I would also send you an e-mail.

The major issue remaining I believe is that of the particulate filter Yesterday inspector Schantz collected information from you stating that the filter is a Viskon 153-002 Looking at the Viskon website this page shows the Series 153 filters as having a MERV rating 8

http://viskon-aire.com/series-153-1-polyester-dry-tackifier-2-ply-panel-filter.html

MERV 8 means a control efficiency of at least 90% However, the requirement we will be imposing is a filter of at least 98% efficiency This is a MERV rating of 13 or greater or an arrestance value from ASHRAE 52.1 of 98% It may be that the filter you have meets the requirement as I don't think the website is specific necessarily to the 153-002 So, I still need a specification sheet for the filter showing a control efficiency of 98 percent or better Or, I need a specification sheet for another model of filter that meets that requirement

Inspector Schantz also indicated that you said the additional information packet you sent included the MSDS for the putty However I am not able to identify which of the MSDS sheets provided are putty The sheets I have are

AME 6000 T 25 resin

Aropol S 5606 T 32 B resin

Hi-Point 90 Red

Nord Composites Clear resin and casting resin

Armorflex Deep Red 963MK105 (gelcoat)

If you could look at these and give a summary as to which are the putty it would be very helpful

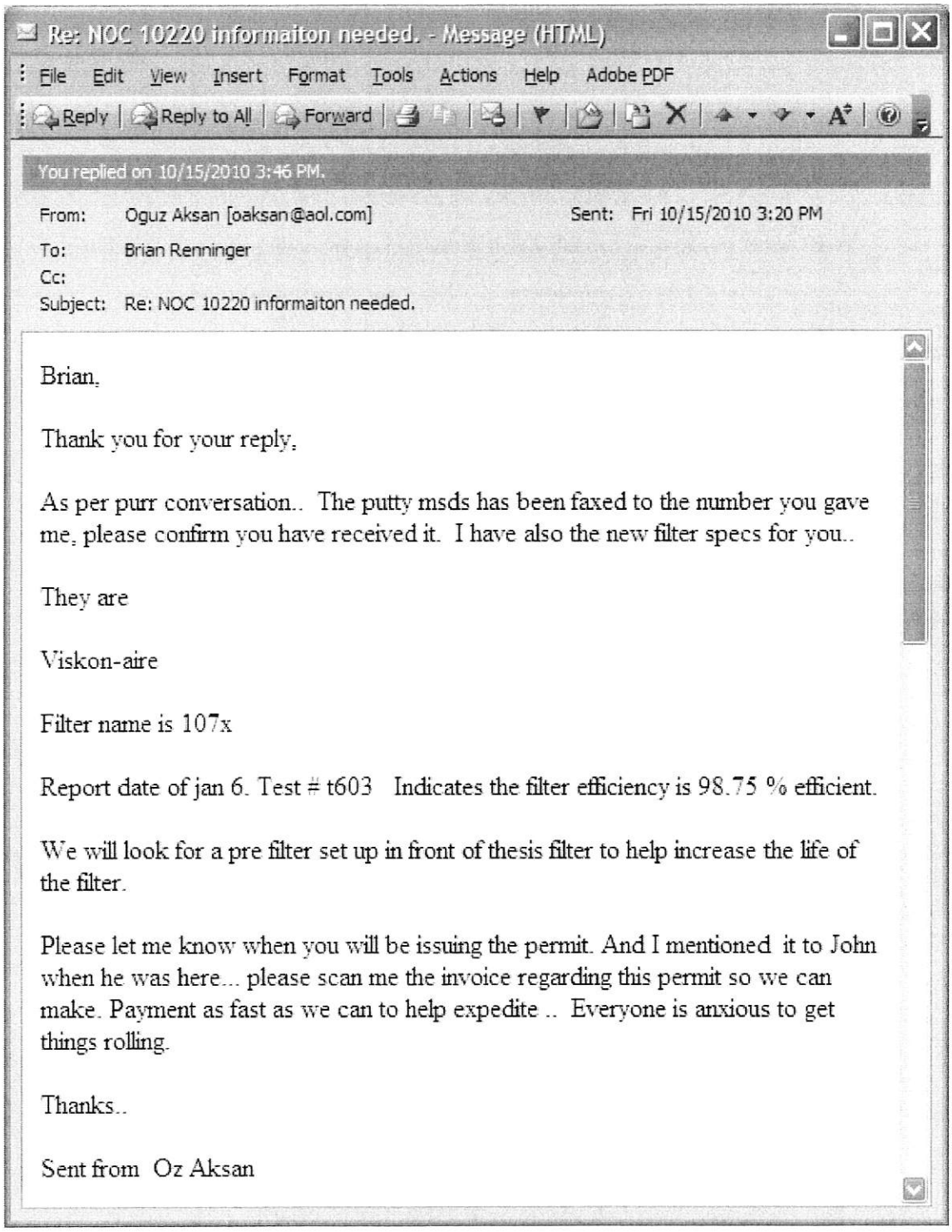
Sincerely,

Brian Renninger P E

Engineer
Puget Sound Clean Air Agency

206 689 4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle WA 98101

19. E-mail from Oguz Aksan, October 15, 2010



Re: NOC 10220 informaiton needed. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

You replied on 10/15/2010 3:46 PM.

From: Oguz Aksan [oaksan@aol.com] Sent: Fri 10/15/2010 3:20 PM

To: Brian Renninger

Cc:

Subject: Re: NOC 10220 informaiton needed.

Brian,

Thank you for your reply,

As per purr conversation.. The putty msds has been faxed to the number you gave me, please confirm you have received it. I have also the new filter specs for you..

They are

Viskon-aire

Filter name is 107x

Report date of jan 6. Test # t603 Indicates the filter efficiency is 98.75 % efficient.

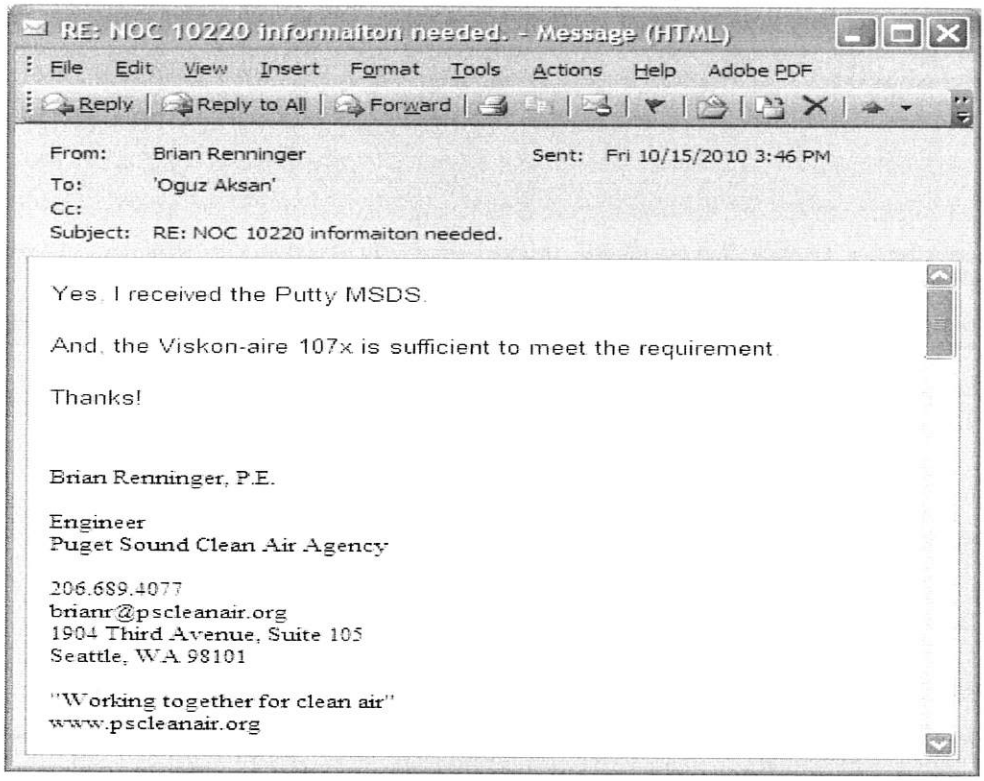
We will look for a pre filter set up in front of thesis filter to help increase the life of the filter.

Please let me know when you will be issuing the permit. And I mentioned it to John when he was here... please scan me the invoice regarding this permit so we can make. Payment as fast as we can to help expedite .. Everyone is anxious to get things rolling.

Thanks..

Sent from Oz Aksan

20. *E-mail to Oguz Aksan, October 15, 2010*



RE: NOC 10220 informaiton needed. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Fri 10/15/2010 3:46 PM
To: 'Oguz Aksan'
Cc:
Subject: RE: NOC 10220 informaiton needed.

Yes. I received the Putty MSDS.

And, the Viskon-aire 107x is sufficient to meet the requirement.

Thanks!

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

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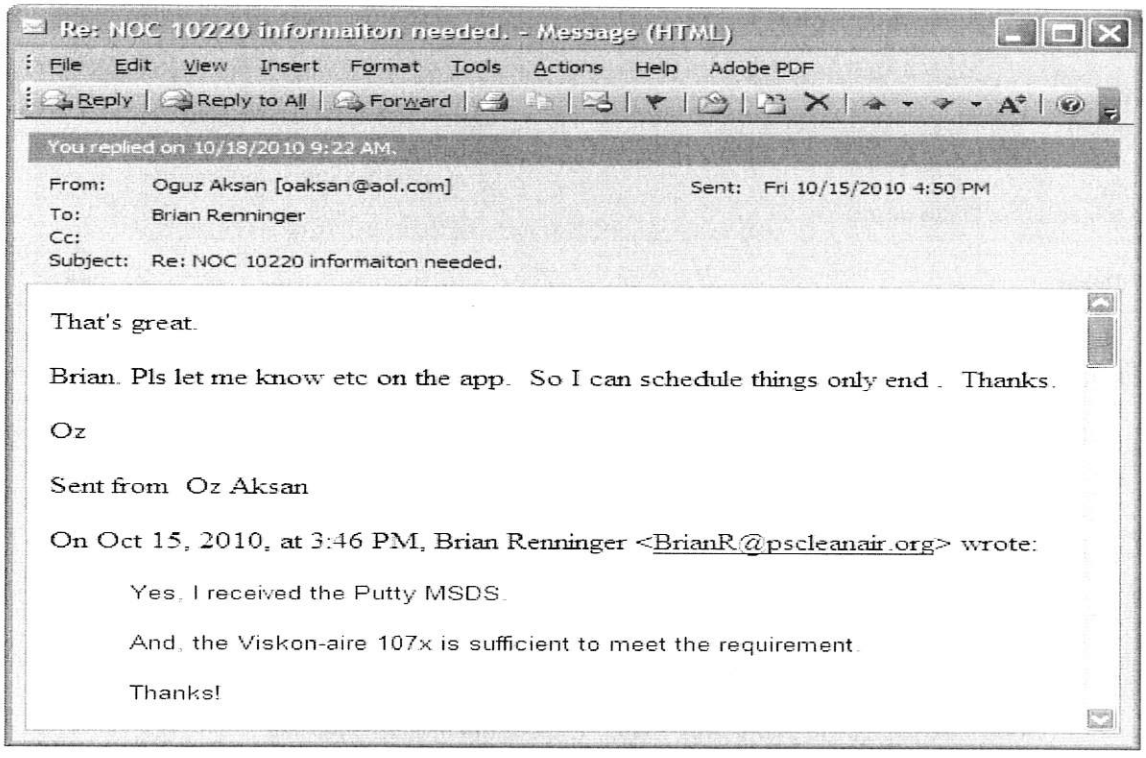
www.pscleanair.org

21. *E-mail from Oguz Aksan, October 15, 2010*



Re: NOC 10220 informaiton needed. - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

You replied on 10/18/2010 9:22 AM.

From: Oguz Aksan [oaksan@aol.com] Sent: Fri 10/15/2010 4:50 PM
To: Brian Renninger
Cc:
Subject: Re: NOC 10220 informaiton needed.

That's great.

Brian. Pls let me know etc on the app. So I can schedule things only end . Thanks.

Oz

Sent from Oz Aksan

On Oct 15, 2010, at 3:46 PM, Brian Renninger <BrianR@pscleanair.org> wrote:

> Yes. I received the Putty MSDS.
>
> And, the Viskon-aire 107x is sufficient to meet the requirement.
>
> Thanks!

22. *E-mail to Oguz Aksan, October 18, 2010*

Status Update - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger
Sent: Mon 10/18/2010 2:50 PM
To: 'Oguz Aksan'
Cc:
Subject: Status Update

I'll be working on the permit this week. Expect the invoice later this week. Once the invoice is paid, I will send you a copy of the draft review worksheet which will include the draft permit conditions for your review prior to issuing the permit.

I have a meeting tomorrow to discuss the project with my supervisor after which I will be able to determine the final fees. The result of the meeting will also influence the timing of permit issuance (i.e. whether or not a public notice is required).

I will get back to you tomorrow (Tuesday) on how that turns out.

Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

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23. *E-mail from Oguz Aksan, October 18, 2010*

Re: Status Update - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Oguz Aksan [oaksan@aol.com]
Sent: Mon 10/18/2010 2:59 PM
To: Brian Renninger
Cc:
Subject: Re: Status Update

Brian,

Thank you or the update .. Can you please also check with Claude Williams regarding the public notice. The hole idea of moving into this place was to make things simple. Especialy glacier bay was a title 5 source. Where we are barely synthetic minor.

He may have some insight.

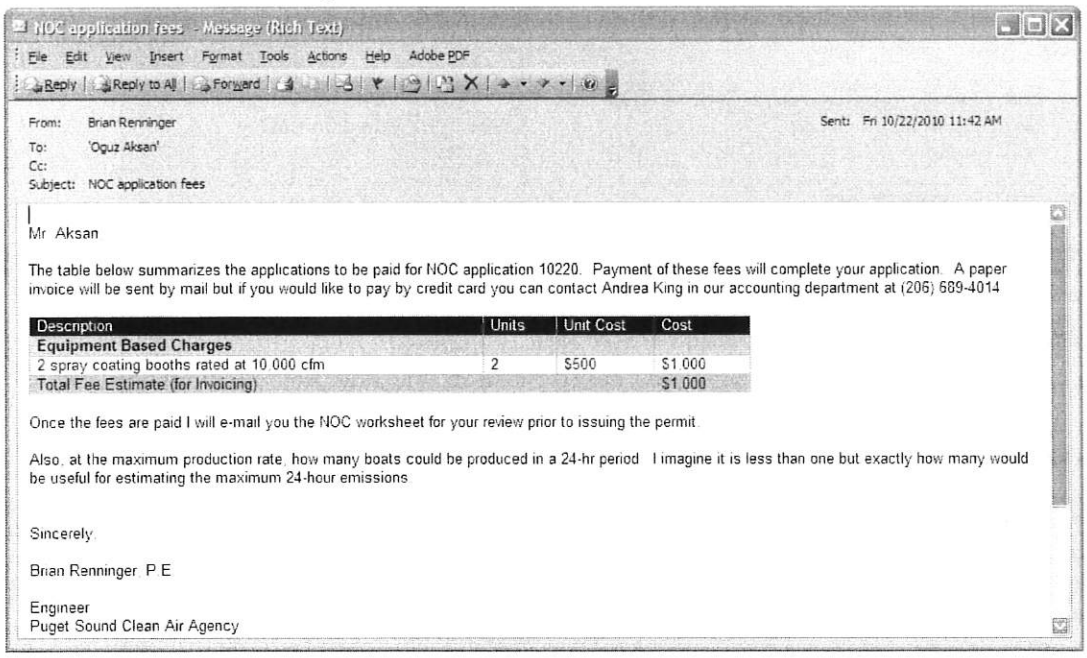
Thank you

Sent from Oz Aksan

On Oct 18, 2010, at 2:50 PM, Brian Renninger <BrianR@pscleanair.org> wrote:

> I'll be working on the permit this week. Expect the invoice later this week. Once the invoice is paid, I will send you a copy of the draft review

24. *E-mail to Oguz Aksan, October 22, 2010*



NOC application fees - Message (Rich Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger
Sent: Fri 10/22/2010 11:42 AM
To: 'Oguz Aksan'
Cc:
Subject: NOC application fees

Mr Aksan

The table below summarizes the applications to be paid for NOC application 10220. Payment of these fees will complete your application. A paper invoice will be sent by mail but if you would like to pay by credit card you can contact Andrea King in our accounting department at (206) 689-4014

Description	Units	Unit Cost	Cost
Equipment Based Charges			
2 spray coating booths rated at 10,000 cfm	2	$500	$1,000
Total Fee Estimate (for Invoicing)			$1,000

Once the fees are paid I will e-mail you the NOC worksheet for your review prior to issuing the permit.

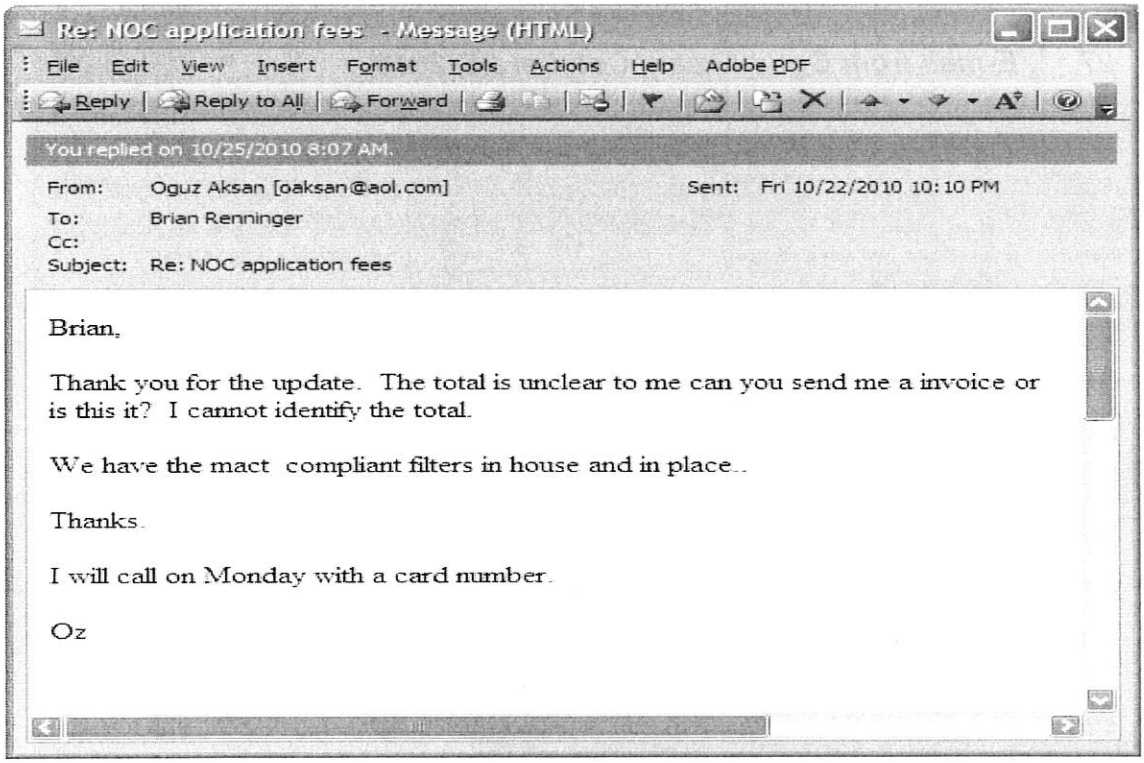
Also, at the maximum production rate, how many boats could be produced in a 24-hr period. I imagine it is less than one but exactly how many would be useful for estimating the maximum 24-hour emissions.

Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

25. *E-mail from Oguz Aksan, October 22, 2010*



Re: NOC application fees - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

You replied on 10/25/2010 8:07 AM.

From: Oguz Aksan [oaksan@aol.com]
Sent: Fri 10/22/2010 10:10 PM
To: Brian Renninger
Cc:
Subject: Re: NOC application fees

Brian,

Thank you for the update. The total is unclear to me can you send me a invoice or is this it? I cannot identify the total.

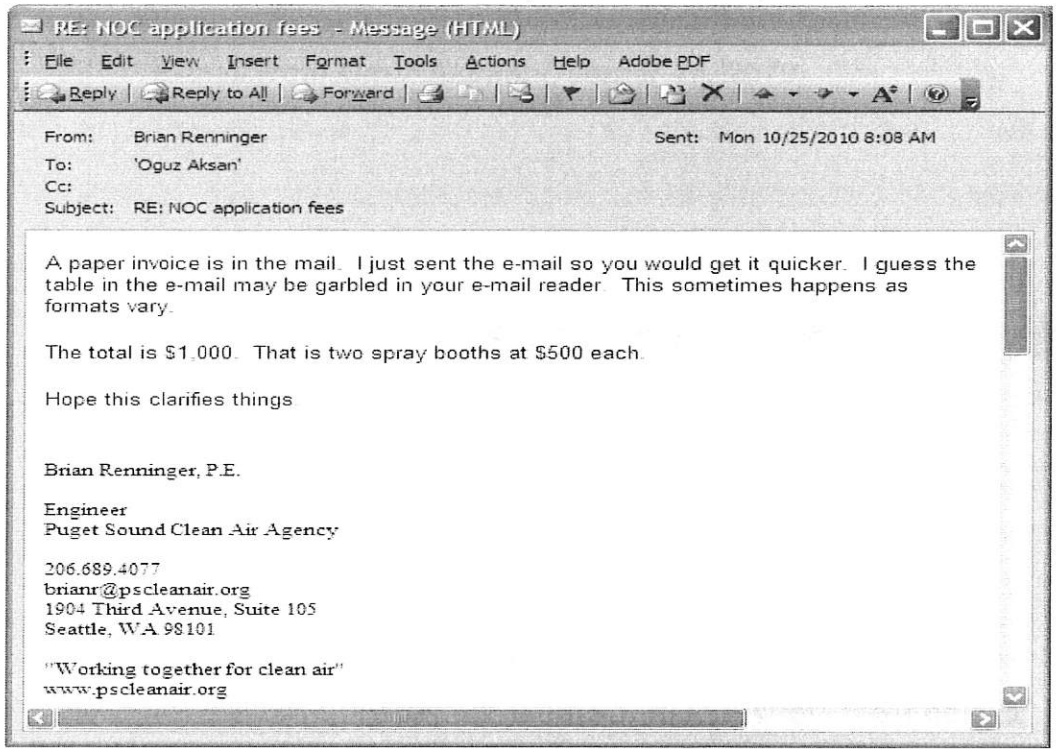
We have the mact compliant filters in house and in place..

Thanks.

I will call on Monday with a card number.

Oz

26. *E-mail to Oguz Aksan, October 25, 2010*



RE: NOC application fees - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Mon 10/25/2010 8:08 AM
To: 'Oguz Aksan'
Cc:
Subject: RE: NOC application fees

A paper invoice is in the mail. I just sent the e-mail so you would get it quicker. I guess the table in the e-mail may be garbled in your e-mail reader. This sometimes happens as formats vary.

The total is $1,000. That is two spray booths at $500 each.

Hope this clarifies things.

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
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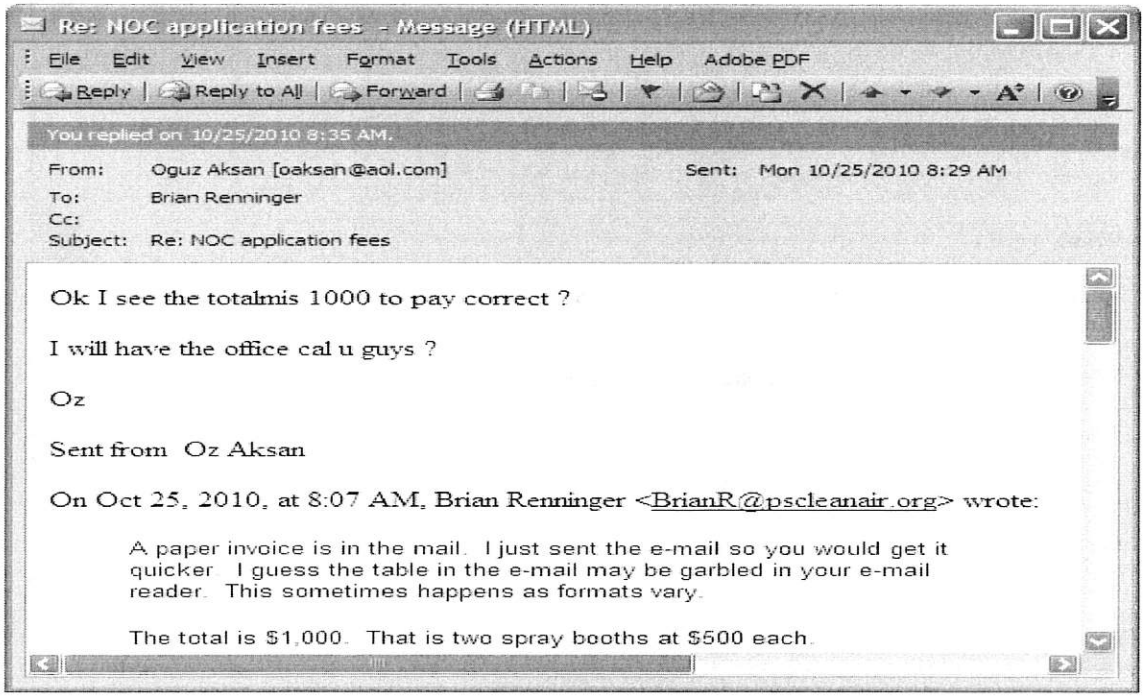
27. *E-mail from Oguz Aksan, October 25, 2010*



Re: NOC application fees - Message (HTML)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

You replied on 10/25/2010 8:35 AM.

From: Oguz Aksan [oaksan@aol.com] Sent: Mon 10/25/2010 8:29 AM
To: Brian Renninger
Cc:
Subject: Re: NOC application fees

Ok I see the totalmis 1000 to pay correct ?

I will have the office cal u guys ?

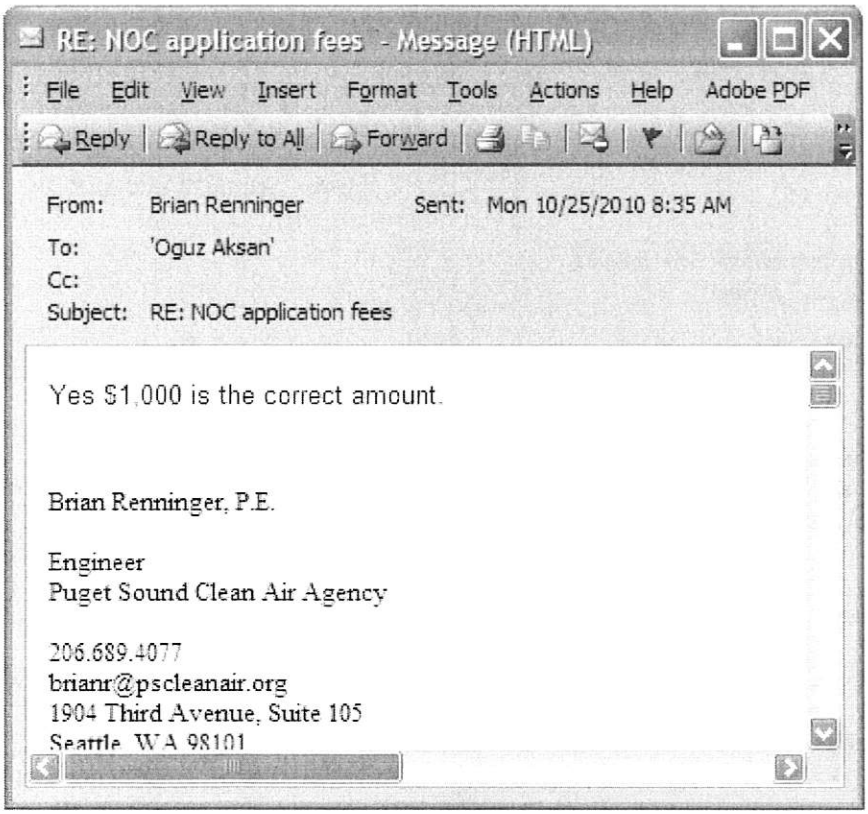
Oz

Sent from Oz Aksan

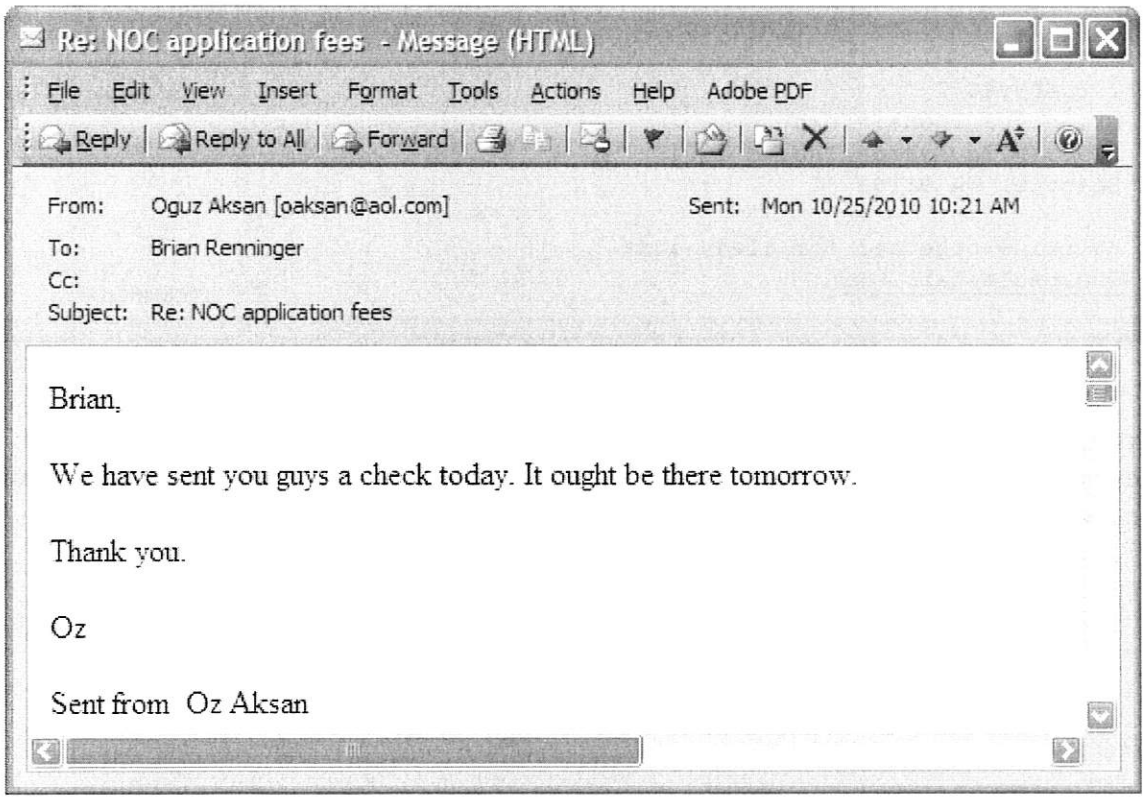
On Oct 25, 2010, at 8:07 AM, Brian Renninger <BrianR@pscleanair.org> wrote:

> A paper invoice is in the mail. I just sent the e-mail so you would get it quicker. I guess the table in the e-mail may be garbled in your e-mail reader. This sometimes happens as formats vary.
>
> The total is $1,000. That is two spray booths at $500 each.

28. ***E-mail to Oguz Aksan, October 25, 2010***



29. ***E-mail from Oguz Aksan, October 25, 2010***



30. *E-mail to Oguz Aksan, October 27, 2010*

NOC Application 10220 Complete. - Message (Plain Text)

File Edit View Insert Format Tools Actions Help Adobe PDF

Reply | Reply to All | Forward

From: Brian Renninger Sent: Wed 10/27/2010 10:15 AM

To: 'Oguz Aksan'

Cc: 'johnlivingston@rangertugs.com'; John Schantz

Subject: NOC Application 10220 Complete.

Attachments: 10220btr.doc (2 MB)

Mr. Aksan,

Thank you for your application for a fiberglass boat manufacturing operation. Your application is complete. Please review the attached worksheet, particularly Section K, which contains your draft permit conditions.

This is a worksheet - it is not your final permit.

Please call me if you have any questions. If you are satisfied with the worksheet and the permit conditions, please respond to this e-mail and I will get your permit processed in final form.

Sincerely,

Brian Renninger, P.E.

Engineer
Puget Sound Clean Air Agency

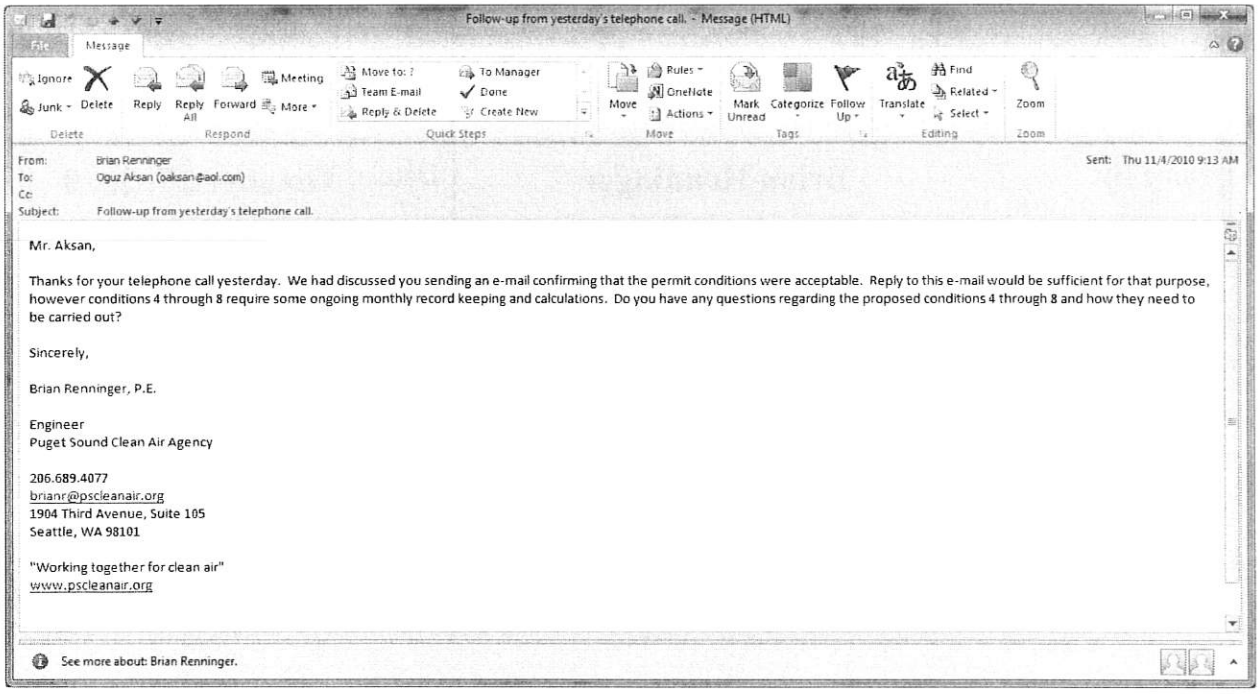
206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

31. *Telephone Call from Oguz Aksan, November 3, 2010*

Mr. Aksan called to say that he had discussed the draft with Mr. John Livingston and that they had no comments and they are satisfied with the permit conditions. I asked that he send me an e-mail to that effect and that I would begin to prepare the final permit.

32. *E-mail to Oguz Aksan, November 4, 2010*



Follow-up from yesterday's telephone call. - Message (HTML)

File | Message

Ignore | Junk | Delete | Reply | Reply All | Forward | Meeting | More | Move to: ? | To Manager | Team E-mail | Reply & Delete | Done | Create New | Move | Rules | OneNote | Actions | Mark Unread | Categorize | Follow Up | Translate | Find | Related | Select | Zoom

Delete | Respond | Quick Steps | Move | Tags | Editing | Zoom

From: Brian Renninger
To: Oguz Aksan (oaksan@aol.com)
Cc:
Subject: Follow-up from yesterday's telephone call.
Sent: Thu 11/4/2010 9:13 AM

Mr. Aksan,

Thanks for your telephone call yesterday. We had discussed you sending an e-mail confirming that the permit conditions were acceptable. Reply to this e-mail would be sufficient for that purpose, however conditions 4 through 8 require some ongoing monthly record keeping and calculations. Do you have any questions regarding the proposed conditions 4 through 8 and how they need to be carried out?

Sincerely,

Brian Renninger, P.E.

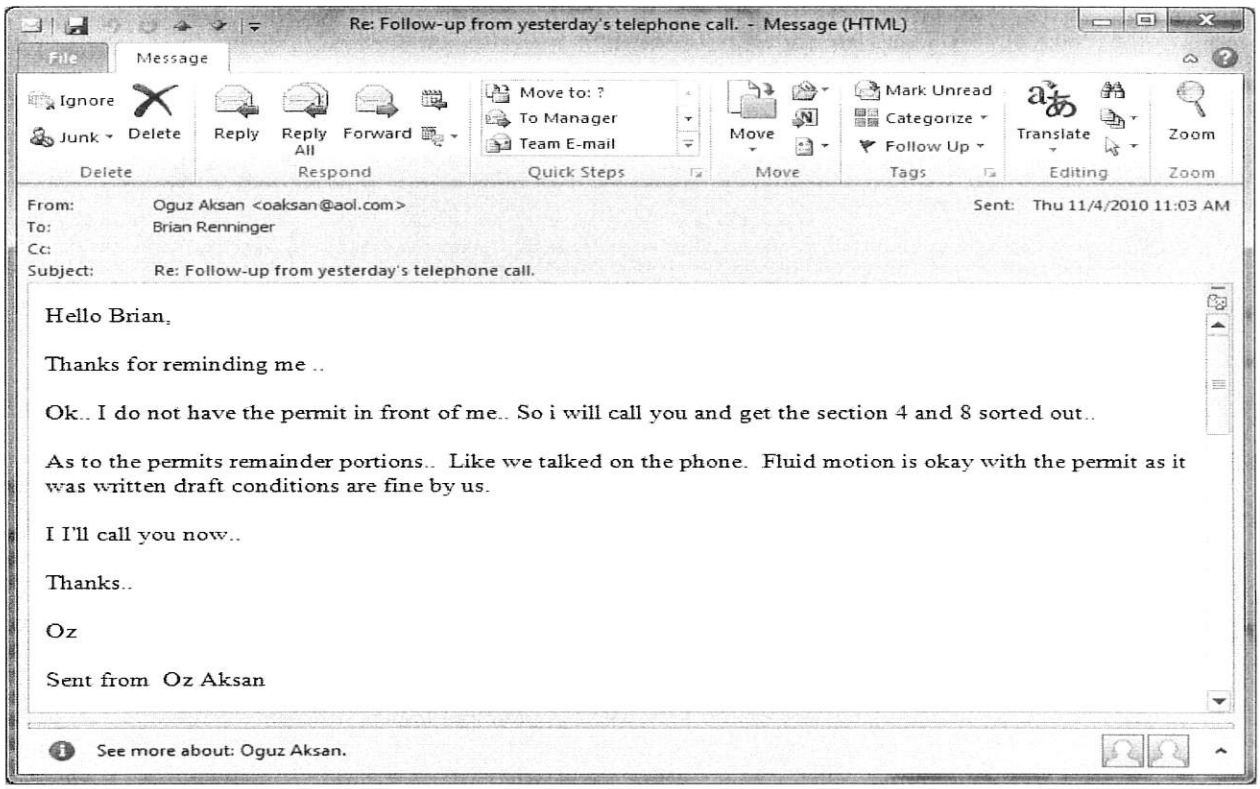
Engineer
Puget Sound Clean Air Agency

206.689.4077
brianr@pscleanair.org
1904 Third Avenue, Suite 105
Seattle, WA 98101

"Working together for clean air"
www.pscleanair.org

See more about: Brian Renninger.

33. *E-mail from Oguz Aksan, November 4, 2010*



Re: Follow-up from yesterday's telephone call. - Message (HTML)

File | Message

Ignore | Junk | Delete | Reply | Reply All | Forward | Move to: ? | To Manager | Team E-mail | Move | Mark Unread | Categorize | Follow Up | Translate | Zoom

Delete | Respond | Quick Steps | Move | Tags | Editing | Zoom

From: Oguz Aksan <oaksan@aol.com>
To: Brian Renninger
Cc:
Subject: Re: Follow-up from yesterday's telephone call.
Sent: Thu 11/4/2010 11:03 AM

Hello Brian,

Thanks for reminding me ..

Ok.. I do not have the permit in front of me.. So i will call you and get the section 4 and 8 sorted out..

As to the permits remainder portions.. Like we talked on the phone. Fluid motion is okay with the permit as it was written draft conditions are fine by us.

I I'll call you now..

Thanks..

Oz

Sent from Oz Aksan

See more about: Oguz Aksan.

34. *Telephone call from Oguz Aksan, November 4, 2010*

Mr. Aksan called with some questions regarding conditions 4 through 8. I walked him through what was required and he said he understood the conditions.

Has the source seen this:	**Sent to Oguz Aksan & John Livingstone**	Date:	**October 27, 2010**
Done By:	**Brian Renninger**	Date:	**October 27, 2010**
Inspector Review:	**Sent to John Schantz**	Date:	**October 27, 2010**
Reviewed by: Supervising Engineer	**Agata McIntyre**	Date:	